



INDIAN AGRICULTURAL
RESEARCH INSTITUTE, NEW DELHI.

28 9/6/36

I. A. R. I. 6.

MGIPC- 81 -6 AR/54-7-7-54-10,000.

The Planter Chronicle.

Recognised as the Official Organ of the U. P. H. S. L., Incorporated.

Secretary's Registered Telegraphic Address: "UPASI," MADRAS.

Telegraphic Address: "CHICLE," Coimbatore.

VOL XX No. 1]

JANUARY 1925.

[PRICE AS 8.

CONTENTS

	PAGE		PAGE.
Kenya	...	Monthly Market Notes by	...
U.P.A.S.I. Book of Proceeding	...	"Eo'hen." ...	14
Kenya Coffee	4	Mundakavam Planters' Associa-	...
Central Travancore Planters' Association ...	...	tion ...	18

PRICE OF "C" COFFEE.

By CABLE - LONDON January,

175s./- per cwt. Market Quot.

28916



IARI

KEP HA.

2 8 916/36

We have had quite a number of enquiries regarding the prospects of Tea and Coffee planting in the colony and protectorate of Kenya, which appear to indicate that considerable interest is being shown in that country by planters in Southern India. It has been difficult to obtain reliable details and we therefore welcome the arrival this week of the Annual Report of the Department of Agriculture for the year ended 31st December 1923. It is a pity the report is so belated, but that is typical of a good many of our Colonies and dependencies, and the volume before us at least is exhaustive; throwing considerably light on the conditions in East Africa and we can perhaps therefore excuse its late appearance since we may profit by its contents.

We would like nothing better than to take our readers through this report, almost page by page, since that is impossible we can only recommend that anyone interested in Kenya should write for a copy. We feel sure that a request to The Hon'ble The Director of Agriculture, Nairobi, would bring the desired publication, and planters would find therein considerable information relating to meteorological conditions, among other things, which we are unable to reproduce here

We have mentioned Tea in our opening paragraph and we imagine that the report for 1924 when it eventually appears will also have something to say regarding this product. As it is, the report for 1923, makes no mention of it with the very important exception of the "Grader and Inspector, Mombasa" who reports that amongst a number of Fruit, Farm and Garden seeds and plants imported, there were seven packages of Tea seed valued at 158 shillings. Eleven packages destroyed or confiscated either on account of infection by disease or as prohibited imports may or may not have included the Tea seed, the report does not say, but among the "prohibited imports" were a number of coffee samples. The significance of this will probably be more readily realised in years to come. It is enough for the moment to know that Tea Seed went to Kenya in 1923 and we know that much larger quantities than seven packages worth 158s. have gone there in 1924. Let us hope therefore that we shall soon know something of what the outcome of this tremendous step has been.

With Coffee we are on more familiar ground, for this product is not exactly new to Kenya. In 1914, it is true, only 4452 cwts. were exported but this had increased to 106386 cwts. in 1920 and in 1923 no less than 139060 cwts. valued at half a million pounds sterling were shipped from Mombasa. It will be seen that the Director is justified in stating that sustained activity was manifest amongst Coffee Planters, who opened up 8890 acres during the year bringing the total under coffee to 52,249 acres. Further on he says that the coffee industry makes a very great contribution to the wealth of the Colony and warrants the Government taking the greatest care of it. In his own words "Inspection of Plantations must be carried out fully and efficiently each year and new methods of handling the trees, and the picked berry tried and introduced.....Coffee is grown in Kenya under such a diversity of conditions that a very thorough knowledge of the crop is necessary if planters are to succeed. Each district presents different problems and guidance, however slight, is always appreciated. The marketing of Coffee on old established Estates should become routine. The soil on which Coffee is planted is almost invariably rich but the excessive insolation and washing to which it is subjected, the generally scrupulous cleanliness of the plantations and the continuous cultivation cannot fail rapidly and materially to reduce the Humus content of the soil. This causes die-

back, easy drying out so the effects of drought are accentuated, and generally results in reduced yields. Organic manures containing phosphate will undoubtedly have a great effect on old coffee. There is too in which African soils are generally deficient should be treated.

The subject of shading evokes much interest and planters are taking steps in various places to try its effect on their coffee. Very encouraging results have been secured.

From time to time pests appear, multiply rapidly, cause a certain amount of temporary damage and then disappear. In view of the fact that most pests and diseases may be controlled by spraying, adequate provision for a water service in plantations should be made. It is reported that the incidence of pests and diseases is greater, two new diseases, "Pink Disease" and "Coffee Berry Disease" were noted, and investigations commenced.

Thirty-four plantations were found in a dirty, unhealthy neglected state and notice to clean was given where considered necessary.

In many directions improvement in methods of management and in quality of product have been noticed. The report of the Coffee Officer attached hereto should be referred to."

We take the liberty of publishing elsewhere in this issue the report of the Coffee Officer.

U. P. A. S. I. BOOK OF PROCEEDINGS 1924.

A CORRECTION.

Mr. F. G. Millar of the South Travancore Planters' Association has written pointing out that on page 75 he is reported as having opposed the proposals made by the Rubber Growers' Association, and that this is in direct opposition to the views he holds that the Planters in Southern India should work in close co-operation with the Rubber Growers' Association and the South Indian Association in London. What he really said was:—"I propose that the suggested Advisory Sub-Committee, as put forward by the R. G. A. and South Indian Association be adopted." This is confirmed by the context (vide page 76) in which Mr. Millar is reported to have said:—"I cannot find a seconder for my proposition, may I withdraw it." According to the report as printed there was no proposition made by Mr. Millar before the Meeting, and I think all present will agree that Mr. Millar's version is correct.

Madras, }
2nd January 1925. }

H. WADDINGTON,
Secretary.

KE.

EE.

The following extracts are published from the Annual Report for 1923 of the Senior Coffee Officer, Kenya Colony.

In comparison with previous years, Fungoid diseases and Insect pests are on the increase. Pink disease was recorded for the first time and the "Empty Berries" found in Kyambu (the cause of which is at present unknown) was present last year, but it has increased considerably this year.

34 Coffee plantations were found in a very dirty condition, in some cases, the Coffee was completely neglected. Instructions under the Diseases of Plants Prevention Regulations, 1921, have been issued in the cases where it was considered necessary.

EXPERIMENTAL.

A considerable amount of progress is being made in connection with the Agobiada system. The four stem system does not appear to be so popular, but under certain conditions, especially where climatic conditions are humid and growth vigorous, the four stem system has certain advantages over the Agobiada system. Trials are being carried out, with the idea of converting,--

- (a) A single stem tree into four stems.
- (b) do. into two stems.
- (c) do. into three stems.

The single stem trees were pruned on Central American lines but owing to the unbroken shape of the tree, the new shoots grew very "lanky" and so were not satisfactory. As an alternative all the primaries on one side of the single stem trees were cut away and the growth of the new shoots were much improved—care should be taken to see that the surplus shoots are not taken off too soon as this will encourage the chosen shoot or shoots to grow very lanky. In the case of converting into a four stem system, one shoot or upright should be left and capped when about two feet in height. Up to the present the experiment is not sufficiently mature to advise Coffee planters to adopt this method.

In the case of converting to a two stem system, the old trees were stumped and two suckers on opposite sides of the stump were selected as soon as they made their appearance.

The result of this experiment is most satisfactory and it would seem that the soundest method to adopt in converting old single stem trees to either two three or four stems is to stump the trees about 8 inches from the ground.

Very large areas of young coffee during the last twelve months have been treated on Agobiada lines, the oldest Agobiada trees in the country are up to the present giving every satisfaction. There has been some difference of opinion regarding training the shoots on the Agobiada system. The most satisfactory method (judging from the result of an experiment) is to leave two suckers nearest the roots on opposite sides of the parent tree and the other upright a few inches above. As to whether the bend should be as acute as possible is a matter of opinion, so far I have not seen where the advantages are gained in making the bend very acute, in fact on the contrary as very often the coffee plants have to be protected against Cutworms and if shields are used as a precaution against this pest an acute bend will render them liable to cutworm damage.

SPACING.

The result of an experiment instigated by me six years ago has now matured with very good results. *i. e.*, planting coffee 10 x 5 feet. The original intention was to train the trees spaced 10 x 10 feet on the four stem system and the intermediate trees to be left on the single stem to be treated as a catch crop until the fifth or sixth year when they should be dug out.

As regards training the trees on the four stem system this was not carried out, all the trees being left on the single stem.

The increase of yield was most marked and will more than compensate the digging out of the intermediate trees.

This system of spacing is being recommended by me, except that under certain conditions the spacing advised is 8 x 5 feet.

It is pointed out that besides getting a larger return per acre when the trees are young, it is possible to adopt either the Agobiada or four stem system without any risk of serious loss. Whether the spacing be 8 x 10 feet or 10 x 10 feet Agobiada or four stem system might be adopted, and the intermediate plants left on the single stem. At the end of five or six years there will be the trees trained on two different systems, and the trees trained on the system which appears to give the least satisfactory results will be dug out.

VARIETIES.

Jackson's Hybrid and Kent's Arabica are both giving good results regarding growth, though I have had no official report on the liquoring qualities of either.

Arrangements have been made to establish small plots of different types of coffee at the Scott Agricultural Laboratories. Nurseries of the following have been planted :—Jackson's Hybrid, Kent's Arabica, Blue Mountain and Mocha. Nurseries of the above were

established at Kabete for the same purpose and they were just the right size and age for planting out last long rains, but as the land at the Scott Agricultural Laboratories was not prepared these plants had to be disposed of. Unfortunately the Coffee plants in the nurseries at the Scott Agricultural Laboratories will not be ready for planting out during the long rains of 1924, owing to the unavoidable delay in making the nurseries.

SHADE.

The artificial shade, explained in my annual report of last year, which is erected on Messrs. Tarlton and Hemsted's estate, Uasin Gishu District, has proved that shade is most essential in that part of the country, but as to whether artificial shade will prove more beneficial than tree shade is a matter yet to be proved and which can only be found out after several years' trial.

The coffee trees under this shade have made a more open growth, thereby eliminating a certain amount of pruning. Mr. Hemsted states that he has never seen coffee trees bearing so heavily in that district as those which are benefiting from the artificial shade.

This experiment was carried out on various lines and it has shown that the best results are obtained when the shade is erected North and South, that is the wire structure running North and South, and making the canopy immediately over the rows of coffee trees thus leaving a space between the rows.

Observations are still in progress regarding this experiment.

Much progress has been made in planting shade trees throughout the coffee growing areas.

As a temporary shade "Muvuli" also known as "Mwethia" a species of *Sesbania*, is giving satisfactory results in certain districts where the rainfall is heavy and hail damage prevalent.

Bananas appear to be more suitable in the drier districts and where the attitude does not exceed 5,500 feet.

The permanent shade trees which are chiefly being planted are Makuyu, *Grevillea robusta*, *Albizia moluccana*, and *Calpurnea aurea*, this latter might also be used as a temporary shade instead of bananas or "Muvule". There is still much to be learned regarding the amount of shade required to give the best results.

Many instances of overshadowing have already been noticed, especially where "Muvuli" has been planted. It has also been noticed that in many cases where temporary shade trees have been planted no steps have been taken to establish permanent shade trees.

Pruning. As stated in my annual report of last year, pruning methods can be considerably improved upon. The principal fault being over-pruning and much damage is caused when the trees are "handled" four or five months after pruning. Instead of thinning out a certain amount of surplus growth, a great deal of wood which is required for next year's crop is cut away.

FUNGOID DISEASES.

Root Rot — Five cases of this disease were noticed and in each case it occurred in old forest land where stumps had been left. A circular regarding the treatment was issued by the Department.

Leaf Spot Disease (Cercospora), Brown Blight Disease (Colletotrichum) and Phoma. In certain districts, the above minor diseases were prevalent, in such cases Leaf Disease is more often than not present and the treatment which is recommended for Leaf Disease, should also control the others.

Leaf Disease — Nearly 50% of the plantations visited this year were affected with Leaf Disease and in all probability if the inspections were made at a different time of the year, this disease would be noticed on plantations which did not appear affected at the time of my visit. In comparison with previous years Leaf Disease is on the increase. A very small percentage of planters adopt systematic spraying and on some plantations where it would appear essential that spraying should be carried out much loss of crop is caused by a severe attack of this fungus. Over-pruning and "handling" is, in my opinion very often the chief cause of Leaf Disease being found in a severe form on many plantations. Judging by the results obtained from spraying as a preventative against Leaf Disease (where it occurs in a bad form) the cost of the material and application is justified.

Black Blight. This appears on trees affected with scale insects and disappears after the scale is eradicated.

Pink Disease. Reported for the first time on four plantations, the Mycologist has investigated the outbreak and has written an article regarding the treatment, etc.

Plateau Coffee Berry Disease. Last year this disease was noticed on fourteen plantations, this year the number has increased to nineteen.

It was very noticeable that the disease was most severe on plantations which were in a dirty state of cultivation.

Very few coffee planters carried out the instructions as recommended by the Department, in one instance, however, where the

spraying had been done over a large area, the result appeared most satisfactory, some Planters who sprayed (although late in the season) are of opinion that certain beneficial results were obtained, so much so that they are prepared to spray this season.

The Mycologist visited the Plateau and together we inspected most of the affected plantations. He still has the matter under investigation.

Empty Berries in Kyambu. This condition was reported on four plantations, but I have little doubt that there are many more plantations similarly affected. The pulp of the affected berries appears quite normal, but on examination one or both beans are found to be arrested in development

Specimens have been forwarded to the Mycologist who is investigating the matter.

INSECT PESTS.

Borers. There are no new outbreaks to report. The one case reported is under control.

Asterolecanium. This scale was found in epidemic form on three plantations and reported to the Entomologist. Much difficulty has been experienced in eradicating this pest but good results however have lately been obtained with Agrisol 1 in 20 applied hot.

Mealy Bug. Reported on seven plantations of which it occurred in epidemic form on two Estates. Numerous spray mixtures were tried and up to the present Agrisol 1 to 24 parts of water has been found most effective when applied hot. The Entomologist has this matter in hand and is carrying out further spraying experiments.

Green Scale. This scale has spread rapidly from plantation to plantation during the last two years. On some Estates the outbreak was in epidemic form,

The Entomologist carried out certain experiments and found Lime Sulphur very effective. Another spray used with satisfactory results was Agrisol. A weak solution of Cooper's Dip was used by one Coffee Planter who states that he was satisfied with the results. It has been noticed on 46% more plantations this year than last.

Antestia. Serious outbreaks occurred on a few plantations and there were many more plantations affected than those visited. Hand picking and destroying the bugs and also introducing the coffee bug egg parasite are found the most effective means of control.

Cutworms. In dry districts shields and poison bait are found effective.

In wet districts paper shields are not so satisfactory and where bamboo forests are nearby, bamboo shields can be used with success.

Painting the stem of young plants 2 inches below and 3 inches above ground level with a solution of Arsenite of Lead and water to a consistency of cream has been found effective in some districts.

The Entomologist however recommends that a "sticker" be used to prevent this mixture from being washed off during the rains.

Thrips. Owing to the very good rainy seasons, this pest did not give any cause for alarm, and in each case where it has been reported it only appeared in a mild form.

Leaf Miner Moth. This pest does not appear to cause any material damage.

GENERAL.

Other species of scale found on coffee are the Brown, Black and Waxy scales. These have not been mentioned in my summary of inspections as their occurrence is rare.

The number of plantations affected with scale is 46 per cent which shows an increase of 21 per cent over last year.

Washing channels and Barbecues continue to gain popularity. These, together with more up-to-date methods of preparing Coffee, are on the increase and have a tendency to raise the value of coffee on the London Market. It is pleasing to note that throughout the year good "Nairobi" coffee has been in demand and the prices realised on the whole have been good. From information received it is pleasing to note that the quality generally has shown a considerable improvement over previous seasons, more particularly in the case of shipments during the first half of the season. It is reported from London that the preparation in a good many cases still leaves a good deal to be desired, though many of the older marks are establishing reputations in London for reliability and are benefiting accordingly.

1923 has been a very favourable year for coffee, not only as regards a good planting season, but also as regards the prospects of a good average crop for 1923-24 if the seasons continue to be favourable.

CENTRAL TRAVANCORE PLANTERS' ASSOCIATION.

(INCORPORATED).

Minutes of Second Quarterly General Meeting held at
Peermade T. B. on Saturday the 20th December 1925 at 10 A. M.

Present : Messrs. E. C. Sylvester, (Chairman), J. S. Wilkie, J. M. Wilkie, G. H. Danvers Davy, R. F. Vinen, A. R. St. George, G. P. Farley, H. Clarke, R. Tait, E. F. H. Gerrard, J. H. Cantlay, G. S. Napier Ford, W. F. Inman and W. A. J. Milner (Honorary Secretary.)

Minutes of last meeting were confirmed

Proposed by Mr. Sylvester and seconded by Mr. Clarke :

"That Dr. H. J. Moore be elected an Honorary Member of the Association" Carried unanimously.

Cattle on Roads in Pambanar & Vandiperiyar Bazaars at night.

It was decided to write and ask the Commissioner of Police to take steps to put a stop to this nuisance and to point out that instructions already given by local Inspector were not being carried out.

The late Mr. McArthur's Memorial Plate. Proposed by Mr. St. George and seconded by Mr. Farley "That the Association subscribe Rs. 100 towards cost of same, the balance to be met by private subscriptions"

Mr. Clarke's letter of 4-10-1924 The Rs. 132-4-5 in question was to be left to Mr. Clarke to collect from 5 estates (Dymock, Chenkara, Mount, Granby and Arnakal).

Mr. Marini's letter regarding Railway to Mundakayam was read and the Honorary Secretary's reply giving traffic figures confirmed.

Cinchona Planting by Government in Annamallais. Read letter of 14th November 24 from Secretary, U. P. A. S. I. and the Hon: Secretary's reply stating that we had no objection was approved of.

Periyar Dam Superintendent. Read letter from Mr. J. Johnson and resolved to support his application for extended service.

Assistant Commissioner, Peermade. Read correspondence with Mr. Mackie and resolved that the Honorary Secretary should consult Mr. Bissett on the matter. Meanwhile, it was to be recorded that we noted with dismay the Travancore Legislative Council's refusal to continue the Assistant Commissioner's post and considered a First Class Magistrate at Peermade essential.

4. *Bangalore Delegates Report:—*

Mr. CHAIRMAN AND GENTLEMAN,

Most unfortunately the Books of Proceedings have not arrived, in time to be in your hands before the meeting. They were despatched from Madras on the 17th inst. and will probably be in the Post Office this evening.

The most important part of the proceedings was, as you know, the Annamalai P. A. Labour Scheme.

Your delegates did their best to get the Annamalai's resolutions postponed and referred back to District Associations, but the majority of Associations interested in the Labour Department were against us. We shall say nothing more about the Annamalai P. A. scheme here as you see it is put down as the next item on Agenda and can be gone into fully then. All members have had a good deal of information about it already and it is now practically certain, as you know, that the scheme will go through.

Representation on Madras Legislative Council. Our suggestion that the proposals under this heading should be put before the S. I. A., London for their opinion did not meet with approval, to put it mildly. Your delegates did not therefore vote on this question one way or the other. Mr. Congreve's resolution was carried and the U. P. A. S. I. is now committed to a monthly expenditure of Rs. 1000/- for this purpose when and if, presumably, the right man can be found. It is unfortunately doubtful whether improved representation on Madras Legislative Council will help Europeans in Travancore very much now that Travancore is under the Government of India.

Standard of quality for Tea. A resolution on this important matter was put up by your delegates and carried and it is hoped that in the near future the Food Act will be amended so as to include Tea.

Periakulam - Kuruva-nuth, portion of Kumili-Kodaikanal Road, Road We brought up the terrible condition of this and our resolution asking the Madura District Board to improve it met with unanimous support. It is most unfortunate that the Madras Government can hold out no hope of this important road being made a trunk road, connecting as it does British India with Travancore and being the sole means of communication with the Periyar Dam.

European Association. Col. Crawford, the Secretary for India, made a very excellent speech and we appeal to all members of this Association to join the European Association.

Other subjects taken up by your delegates were Empire Planters' Club in London, UPSAI Reserve Fund, Mr. Ashplant's report on

helopeltis in Java; and separately with K. D. P. A. and S. T. Planters' Association delegates only, the Inter-District Rules for bolting coolies. Our suggestions for amendment of K. D. P. A. draft Rules will be considered.

We cannot close without placing on record our great appreciation of the support and advice given us by Mr. Murphy in everything we brought up.

We thank you for having done us the honour of appointing us your delegates and shall be glad to answer any question members may like to ask."

A hearty vote of thanks to the delegates proposed by the Chair was carried with applause. Their expenses were sanctioned.

(a) *Annamalai P. A. Labour Scheme*. This was very fully discussed: the feeling of Meeting eventually being that, as all other Associations using the Labour Dept., were in favour of the scheme, we should also agree to it. It was decided that the following amendments were to be brought up by our delegates at the next General Committee meeting U. P. A. S. I:—

Para 5. In the case of Tea the subsidy should be a minimum of 10½ annas per acre.

Para 8. In place of "subject to general supervision...", "subject to the managing powers conferred on the Executive Committee by Articles of Association."

Para 9. Three members and Three members in waiting.

„ 12. Subject to Executive Committee as in para 8.

„ 13. In place of "after the budget has been passed...", "after the budget has been approved by General Committee ..".

„ 27. That the word 'entirely' should be omitted.

„ 30. Considered unnecessary; the whole para should be omitted.

Election of Control Committees.

Palamcottā:—Member Mr. W. A. J. Milner.

Member in waiting:—Mr. T. A. Kinmond.

Srivilliputtur: Member

Mr. J. H. Cantlay.

Member in waiting:— Mr W. F. Inman.

Proposed by Mr. Sylvester, seconded by Mr. Farley and carried unanimously.

4. (b) *U. P. A. S. I. Sports Club.* Read letter of 15-11-24 from Mr. Whitton. Mr. St. George proposed, Mr. J. M. Wilkie seconding, that Mr. G. P. Farley should be the Peermade representative. This was carried unanimously.

5. *Mundakayam Cart Hires.* The Honorary Secretary was requested to inform members of increased rates now being paid.

6. *Local Tea Sales.* The Honorary Secretary was directed to remind members of the agreement come to at our meeting of 27-10-23 that all sales of fluff and red leaf were to be discontinued with the exception of consignments of fluff intended for export for manufacture of caffeine.

7. *K. K. Road.* Mr. Milner summarised briefly the chief points discussed in the interview with the Chief Engineer, the Executive Engineer and Assistant Engineer on 16-12-24. It was proposed by Mr. Milner and seconded by Mr. Vinen:

"That this Association requests the Chief Engineer to arrange immediately for the supply of sufficient metal on the bad portions of the K. K. Road between 18th and 70th miles to allow of same all being remetalled during the coming monsoon; also to provide an extra steam or water-ballast motor roller for the ghat section not later than May 1925"

Carried unanimously.

8. *Supply of Silver Rupees at Treasury.* Resolved that this should be one of the subjects our delegates to S. M. P. A. should bring up, it being understood that no supply of Silver Rupees or one Rupee notes was available at the local Treasury.

Mr. Napier Ford proposed and Mr. J. S. Wilkie seconded:

"That the Secretary, U. P. A. S. I. be asked to write the Govt. of India pointing out the great inconvenience caused by the withdrawal of Re. 1 notes and requesting that these be re-issued".

This was carried.

Madras Radio Club. Papers regarding this were placed on the table and the advantage of belonging to same explained to members

10. *Instructions for Sri Mulam Delegate.* (1) K. K. Road.
(2) Supply of Silver Rupees at Treasury.

11. *Income Tax & Davagai Land.* The Committee's reply to T. C. P. A. letter of 14-11-24 agreeing to Rs. 500 from T. C. P. A. funds being contributed towards cost of Mundakayam P. A. test case was approved.

12. *Peermade P. O. Telegraph Hours.* Read letter of 13-12-24 from Postmaster and the Honorary Secretary was requested to reply stating that, of the times proposed, 10 A. M.—5 P. M. would be most convenient to members.

13. Correspondence regarding Planting Membership, Travancore Legislative Council, was read. Mr. Sylvester stated that he hoped he would be able to stand for election next April as he understood Mr. Mackie was not standing again.

The Honorary Secretary was asked to convey to Mr. Mackie our great appreciation of all he has done for us while representing us on T. L. C.

With a vote of thanks to the Chair, the meeting closed.

W. A. J. MILNER

Honorary Secretary.

E. C. SYLVESTER,

Chairman

MONTHLY MARKET NOTES by "EOTHEN."

Special to the Planters' Chronicle.

London, December 11th, 1924.

Tea. The past month has seen a further rise in tea prices at the weekly auctions, but the phenomenal figures reached during the latter half of November have not been maintained, and the market has sagged. The remarkable prices realised in November were partly due to the activities of a very large buyer who is stated to have been reselling to a considerable extent. This buyer was not operating last week and prices dropped approximately a penny per lb. General buying was indeed less, and a considerable quantity remained in the hands of "buying-over" brokers. There were several reasons for this. The provincial seasonal requirements have, as a rule, been satisfied some weeks before Christmas and demand from this source becomes suspended. At the same time the manufacture of the tea is at some pressure and shipments heavy, so that, altogether, for the moment there is an increase in stocks, as is borne out by the figures published during the past week.

The stocks in bond at 30th November were:—Indian 99,699,935 lbs (against 97,383,689 lbs in 1923); Ceylon 26,784,826 lbs (against 19,678,040 lbs.). The total stock in London including Java, China, etc. is now 156,156,266 lbs. November imports were steady at last

year's figures, but deliveries for the same month have dropped by about 4,500,000 lbs. On the season imports of Indian teas have declined 4,000,000 lbs. but deliveries were a little over 4,500,000 lbs. more.

The general market opinion is still bullish, but it may be advisable to utter a note of warning not to expect the recent very extraordinary prices to be maintained as certain sober-minded tea dealers are already beginning to state openly that in view of the recent increase in the stocks of the commodity a 2/- average is no longer warranted. Bitter allusion has also been made during the past few weeks to the influence of secondhand brokers on the market. The tea market has so far been happily remarkably free from the machinations of the outside speculator from which its sister industry, rubber, suffers so much. It is to be hoped that this pleasant state of things will be allowed to continue.

The action of the directors of the Consolidated Tea and Lands Company in deciding to recommend that £600,000 of the reserve be capitalised and distributed among the Ordinary shareholders in the form of Ordinary shares, thus giving one bonus share for each existing Ordinary share held, has raised afresh a general discussion regarding the proper capitalisation of tea companies. The action of the Consolidated Tea and Lands Company was followed by that of the Empire of India and Ceylon Tea Company, which proposes early in the New Year to capitalise part of the reserve fund in order to allow of the distribution of one new share for each five Ordinary shares held. In principle, this capitalisation of reserves is accorded general support in the financial press. There are, however, correspondents who hold that the more proper course to pursue would be to have the estates revalued and to adjust the capital account accordingly. All are agreed nevertheless that from the commonsense point of view it is inadvisable for tea companies to continue declaring huge dividends of 50 and 60 per cent, thereby unduly irritating the consuming public, and causing the cry of profiteering to be raised.

The following are the averages to date, not including this week's auctions.

	Week Ending Dec. 6th 1924.	Current Week 1923	Jan. 1 to Dec. 6 1924.	Jan. 1 to Dec. 6 1923.
Northern India	1/11.3d.	1/6.18d.	1/7.77d.	1/6.81d.
Southern India	1/11.08d.	1/6.21d.	1/6.89d.	1/6.13d.
Ceylon	2/0.33d.	1/8.31d.	1/8.65d.	1/7 35d.
Java	1/6.79d.	1/2.46d.	1/3.35d.	1/2.94d.

There has been little change at this week's auctions.

Rubber. Readers of these notes may recollect that in September the rubber market was described as being "in a state of suspended animation". The comment was added "There are many who hold that the market is not dead but asleep, and that it will soon wake as a giant refreshed". The allusion was also made to the possibility that "there will be much heart-burning because rubber shares were not snapped up in October 1924". This mild excursion into the realms of prophecy has proved correct for during the week rubber has touched $1/6\frac{1}{2}d$ and rubber shares which were picked up in September or October can now be unloaded at a very fair profit. During the first month of the restriction quarter, which began on November 1, the average price was $1/5.403d$, and it therefore follows that an average of just over $1/6\frac{1}{2}d$ will have to be obtained in this month and in January next in order to ensure that a further 10 per cent. shall be added to the exportable quota on February 1, 1925. The market opinion is generally bullish and it is considered that the $1/6d$ average will be attained, thus enabling the quota to be put up to 60 per cent. according to plan. There are many cautious ones, however, who think that it will be touch and go at the end of January as to whether the $1/6d$ average will be reached, but there can be no doubt whatever that the January market will be a most interesting one, particularly during the second half of the month. Upholders of restriction are extremely gratified by the course which events are taking both as regards the price of rubber and the steady diminution of the London rubber stocks, which now stand at 32,723 tons against 60,375 tons a year ago and 70,101 tons in 1922.

The protagonists of restriction, however, have not been so pleased with the Report on the Economic situation of the Netherlands East Indies compiled by Mr. H. A. N. Bluett, British Commercial Agent in Java, and issued last week by H. M. Stationery Office. One of the strongest arguments which chairmen of rubber companies have put forth at their company meetings as an offset to the increased Dutch production is that the Dutch are ruining their estates by over-tapping, with its consequent interference with proper bark renewal. Mr. Bluett who has just returned from a 2,000 miles tour of Sumatra reports as follows:- "The opinion so often expressed that the producing trees will be killed by overtapping appears to be without foundation; nowhere in the vast area examined was there any sign of over-tapping or disease; the native gardens were well cared for, the rubber trees are well planted out and tapped according to the usual estate practice. It was particularly noticeable that trees under five years old were not tapped at all." Mr. Bluett gives startling figures and makes sweeping statements anent the popularity of rubber planting among the natives in the D. E. I. His conclusions have raised some discussion here, although surprisingly few people appear to have noticed his remarks

scotching the "over-tapping" rumour. The native rubber industry in the D. E. I. is a grave menace to Britain supremacy in rubber.

Returning to the market, American demand has recently been brisker, chiefly for prompt shipment. Under the increased demand from American manufacturers the New York position is tightening up further. November imports in the U. S. A. were around 2,600 tons but this does not appear to have been sufficient to cope with their current requirements. The continent has been buying fairly consistently, also for spot. Sellers are reserved, even with the market over 1/6d. as they expect 1/7d. in January. Where 1/6d. used to be the price for which rubber was held, companies are now thinking bigger : let us hope that they will not be disappointed. The outlook is good for 1/6d. rubber for some time to come, but producers must not expect to have things *all* their own way.

Coffee. The high prices which coffee has been fetching recently gave rise to a demand for rubber-cum-coffee shares on the stock Exchange last week. Gambling in "futures" in New York has been rife and there have been considerable fluctuations. Unsettled conditions have been experienced during the month for the advancing prices of the past quarter attracted a growing body of outside speculators who found New York the readiest market in which to operate. Reports of a good November flowering, consequent on general rains in Sao Paulo earlier in the month, seem to have given the first impulse to the decline and speculators anxious to liquidate their holdings on the first sign of weakness were in no way assisted by trade buyers, to whom a lower range of values is welcome rather than otherwise. Actual coffee has not suffered to anything like the same extent as "futures" in New York, the reason being that Brazil is not forcing sales and supplies of "milds" are too small to exercise much pressure.

According to Messrs. James Cook and Co.'s circular, up to 190/6 per cwt. has been paid for bold colory Costa Rica (new crop). African sorts sold readily without any material decline in prices. Superior Santos, c & f, is now quoted at about 125/- per cwt. the same as a month ago but in the meantime it has been quoted as high as 137/- per cwt. The world's visible supply according to Messrs. During & Zoon now amounts to 5,631,000 bags, a decrease during the month of November of 128,000 bags.

The British Commercial Agent at Java (Mr. Bluett) mentions in his report on the economic situation of the Netherlands East Indies just published, that the estimated production of coffee in 1924 for the whole of the N. E. I. is as follows :—

			Piculs.
Liberia	...	...	7785
Java	...	...	112884
Robusta	...	...	841851
Other Kinds	...	...	13582
	...	...	————
			976102
			. ———

Although the production of fancy varieties is decreasing, this is made up by the increased production of Robusta in Sumatra, where many new estates are coming into bearing. The ravages of the coffee berry bug in Sumatra are not so serious as in Java, and on many new estates this insect pest is at present unknown.

Some idea of the change in prices may be obtained from the fact that at the close of last year the Southern Indian berry was priced at 94/ per cwt. in Mincing Lane whereas last week's price was around 160/. Similarly the Java product has risen from 80/- last year to about 114/-.

MUNDAKAYAM PLANTERS' ASSOCIATION.

(INCORPORATED).

Report of Proceedings of a quarterly General Meeting of the
above Association held at the Mundakayam Club on
Saturday the 20th December at 2-30 p. m.

Present—Messrs. G. McPherson (Chairman) H. V. Tringham,
O. J. Egan-Wyer, J. C. M. Caruth, G. A. Brooke,
J. R. Vincent, F. J. Thom, W. Gillespie, R. M.
Saywell, and M. S. Calderwood (Hon. Secretary).

Notice.—The Hon. Secretary read the notice calling the meeting.

AGENDA.

1. *Minutes.*—Minutes of a Committee of Management meeting held on 24th November were read and confirmed.

2. *U. P. A. S. I. Annual General Meeting at Bangalore.*—The Chairman intimated that the Delegate to the U. P. A. S. I. Annual General Meeting had not thought it necessary to draw up a report in view of the very full details to be had in the Book of Proceedings. A very cordial vote of thanks was unanimously accorded Mr. J. J. Murphy for his able representation.

The Hon. Secretary was instructed to order and supply all Members with a copy of the book of proceedings.

3. *Report of Committee of Management. (a) Income Tax Edavagai Lands.*—The Chairman informed the meeting that since the last General Meeting there had been 3 meetings of the Committee of Management, which had been largely concerned with the proposed Test Case on Assessment of Income Tax on Agricultural Incomes derived from Edavagai Lands. Mr. Krishna Aiyangar had been engaged to present the case before the High Court on behalf of those members who had agreed to subscribe on an acreage basis of 2½ annas per planted acre for Sterling Companies and 5 annas an acre for Private Proprietors. Latest word from Mr. Krishna Aiyangar was a telegram to the effect that the case was referred to the High Court but not yet posted for hearing.

(b) *Sri Mulam Popular Assembly, 1925.* The Chairman informed the meeting that the Committee of Management had asked Mr. J. R. Vincent to represent the Association at the Sri Mulam Popular Assembly and that as a result of the circular to members the subjects that had been adopted were:—

- (1) Registration of Bandies.
- (2) Cattle Trespass.

4. *Rules.* The draft copy of the Rules as drawn up by the Committee of Management and circulated to members was considered.

Mr. Vincent supported by Mr. Thom suggested the addition of one more rule as follows:—

“That all resolutions shall be written and signed by the proposer and seconder before being discussed or voted upon.”

This Rule was added to the Draft Copy. Mr. O. J. Egan-Wyer then proposed:—

"That the draft rules as set forth below be and are hereby adopted as the Rules of the Association."

This resolution was seconded by Mr. H. V. Tringham and carried unanimously.

Rules of the Mundaḡayam Planters' Association Incorporated.

1. *Election of Office Bearers etc.*, The Chairman and Hon. Secretary shall be elected by ballot at the Annual General Meeting of the Association and shall hold office until the next Annual General Meeting: should either office become vacant within this period the Committee of Management shall appoint one of the members of the Association to hold that office, such appointment to hold good until the elapse of the period. An Honorary member may be elected to hold office or to the Committee of Management.

2. *Annual Report and Accounts.* An annual detailed statement of the Accounts and affairs of the Association together with a copy of the report of the Auditors and the Report of the Committee of Management on the year's working shall be circulated to members at least fourteen days prior to the holding of the Annual General Meeting.

3. *Notice of subjects.* No subject other than those on the Published Agenda shall be discussed except with the consent of the Meeting, and no original proposition shall be made without the consent of the Meeting unless fourteen days notice in the case of a General Meeting and seven days notice in the case of a Committee of Management Meeting has been given to the Hon. Secretary; always excepting resolutions altering the Memorandum and / or the Articles of Association of which twenty-one days notice shall invariably be given.

On receipt of such notice the Hon. Secretary shall circulate an amended Agenda.

4. *Lines of Debate and Discussion.* The lines of debate and discussion shall be as follows :—

(a) All resolutions shall be written and signed by the proposer and seconder before being discussed or voted upon.

(b) No member shall be allowed to speak on an original resolution more than once except the mover who has the right of summing up in reply.

(c) Any member shall have the right to request that the Association resolve into General Committee.

(d) In Committee, members shall be allowed to speak freely, subject to the ruling of the Chairman.

(e) Any emergency arising with reference to the interpretation of the Articles of Association, or the rules, or to the lines of debate and discussion shall be dealt with directly by the Chairman, whose decision shall be final.

Labour Rules. 5. The labour rules for the district 'as existing prior to the incorporation of the Association shall be adopted and included, in the rules of the Association. In the event of arbitration, any member failing to submit to the decision of the Arbitrators shall become liable to the maximum penalty for breach of the rules as set forth in Article 12 of the Articles of Association.

Alterations to Rules. 6. For an alteration of these rules any resolution necessary for such alteration shall be deemed a special resolution as per Article 26 of the Articles of Association.

5. *U. P. A. S. I. Sports Club.* The Honorary Ssecretary read letter dated 15th November from the President of the U. P. A. S. I. Sports Club. It was decided that this Association would not join the Sports Club as the majority of its members were unable to avail themselves of its benefits.

With reference to the request in the letter for the appointment of a sports Club Representative Mr. Brooke proposed:—

"That Mr. E. S. Conner be asked to act".

This proposal was seconded by Mr. Saywell and carried unanimously.

Correspondence and any other business. (a) *Post Office well.* The Hon. Secretary read letter from Mr. Gillespie with reference to to the post master's request for a well to be dug on Boyce Estate. Some discussion ensued during which it was pointed out that the Postal officials, threat to remove the office to the 33rd mile if the Postmaster did not get his well, was of no account to most of the members present as it would serve them equally well if not better at the 33rd mile than at the 35th; and that the Estates who were really affected by the removal should pay for the well. Finally Mr. Egan-Wyer moved

"That the Hon. Secretary be asked to write around to the Estates interested and ask if they are prepared to subscribe towards the sinking of a well for the Postmaster".

This motion was seconded by Mr. Tringham and carried.

(b) *English and Foreign Mails.* (1) *Late Delivery.* The Hon. Secretary read letter from the Postmaster-General stating that the matter of late delivery of the Mails was having his attention. The Hon. Secretary was instructed to address the P. M. G. on the subject again and if he got no satisfaction to send copies of the correspondence to the Director General of Posts and Telegrams, Calcutta.

(2) *Early Despatch.* Letter from Mr. Vincent re. the earlier collection of English and Foreign mails—the change from Tuesday at 9.30 to Monday at 9.30—was read. The Hon. Secretary was instructed to take up this matter also with the P. M. G.

(c) *Alexander & Co.,* Read letter from Alexander & Co., Noted.

(d) *Planting Members of Travancore Legislative Council.*—The Chairman reminded the meeting of Mr. Mackie's letter announcing his impending resignation from the Travancore Legislative Council which had been circulated to all members.

A very hearty vote of thanks to Mr. Mackie for his most able representation of the European Community, in the Legislative Council was recorded on the proposal of Mr. Egan-Wyer seconded by Thom.

Mr. Tringham proposed

"That Mr. J. R. Vincent be asked to stand for the European seat in the Legislative Council".

Mr. Vincent declined but suggested that the Association should ask Mr. J. B. Cook to stand. This was agreed to, and the Hon. Secretary was instructed to write and ask Mr. Cook's permission to put him forward as Candidate. Mr. Vincent intimated that in the event of Mr. Cook's absolute refusal, he might be willing to stand.

(e) *Mundakayam Memorial Well.*—Letter from Secretary, Birthday Celebration Committee, Mundakayam was read requesting a subscription towards the Expenses of the well which was being sunk as a memorial to his Late Highness the Maharajah. It was agreed to donate Rs. 50.

The meeting terminated with a vote of thanks to the Chair.

G. MCPHERSON,

Chairman.

M. S. CALDERWOOD,

Hon. Secretary

The Planters' Chronicle.

Recognised as the Official Organ of the U. P. A. S. I., Incorporated.

Secretary's Registered Telegraphic Address "UPASI," MADRAS.

Telegraphic Address:— "CHRONICLE," Coimbatore.

VOL. XX No. 2]

JANUARY, 10TH 1925.

[PRICE As 8.

CONTENTS.

	PAGE.		PAGE.
Madras Agricultural Department		Nilgiri Planters' Association...	32
Administration Report ...	23	Planters' Week ...	34
On the Training of Scientific		Cover Plants in Malaya ...	36
Officers for Tropical Planta-		Shevaroy Planters' Association	39
tion Industry ...	27		

PRICE OF "A" COFFEE.

BY CABLE - LONDON, 9th January, 1925.

170s./—per cwt. Market Quiet.

MADRAS AGRICULTURAL DEPARTMENT ADMINISTRATION REPORT.

Mr. Anstead's report on the operations of the Department of Agriculture for the year 1923-1924 has been issued with an attendant G. O. No. 1956 dated 15th November 1924. We hasten to agree with Government that the report is very interesting and well-arranged and no one will grudge the Director of Agriculture the opinion of Government, that he is to be congratulated on his successful administration of the Department during the year.

That the Administration has not been a bed of roses is made clear by the opening paragraph of the report in which Mr. Anstond draws attention to the retirement of Dr. Norris and Mr. Parnell. The latter's work on Paddy is of course well known but to planters his name will be less readily brought to mind than that of Dr. Norris. The point that we have to emphasise however is that during the last two years the Department has lost the services of five senior European officers who have retired, in addition to Mr. R. C. Wood on foreign service. Planters have largely contributed to their own Scientific Department, it is true, but they have also felt in the past that behind their own efforts there was always a background of knowledge and help readily available so that the loss to the Department is also very much a matter of concern to the planting industry. With such names as Norris, Parnell, Sampson and Ballard no longer a familiar feature of the Department, we must admit with the Director that its vitality and efficiency have been considerably impaired and we can but join in the hope that as little time as is possible will be spent in regaining the lost ground.

We have extracted the following paragraphs from the report as being of interest, dealing as they do with "Planters' Crops."

Coffee.—In spite of none too favourable monsoons the season was a good one, and crops turned out above the estimate and average. Continental exchange was adverse, but prices were satisfactory and remain so. The total acreage under coffee in South India is estimated at 131,655 acres, Mysore having 52 per cent of this, Coorg 24 per cent, and Madras 22 per cent. The 1922-23 crop amounted to 25,467,687lb. with an average yield per acre of 296lb., in comparison with 202lb. in the previous year.

The most important questions studied by the Department were the problem of light and empty beans, which on some estates caused a very serious reduction of crop. The exact cause of this is still obscure. Spraying with Bordeaux Mixture as a preventative against leaf disease and other fungoid diseases has been demonstrated to be a practical proposition when water and labour are available, and the result is a considerable financial gain. Attention has been paid to the production of new types of coffee by means of hybridization. Several promising hybrids exist and are under systematic study and trial, and there appears to be a reasonable possibility of improving them still further. The collar pruning of old coffee was also studied.

Tea. The tea industry passed through a period of great prosperity during the year, in spite of the fact that Russia, the biggest buyer of tea in pre-war days, has gone completely out of the market. There has been increased consumption in other countries to compensate for this, especially in Great Britain, and future prospects are good.

The total production of tea in South India during the calendar year 1923 was 42 million pounds, of which 34 million pounds were exported, representing about 10 per cent of the total export of tea from all India. The majority of this goes to the United Kingdom. The year has been a good one, prices have been high, and the quality of the crop was good and remarkable for the small percentage of really poor or common teas. In South India, special attention has been paid to work in the factory with the result that the general standard of quality has shown a marked improvement and has been reflected in the prices obtained.

During recent years tea drinking in India has been carefully fostered by the Tea Cess Committee, and by individual planters, till the demand amounts to some 20 per cent of the total outturn. Owing to the large increase in prices, the local consumer is finding that he cannot obtain what he wants at a price he can afford, and this has led to a certain amount of adulteration, but the situation is receiving the careful attention of the planters.

The Department has paid special attention to the diseases of tea, especially to the control of "Mosquito Blight," which is apparently closely linked up with the chemical composition of the soil, and the ratio of available potash to available phosphoric acid. The best time to prune tea has also been studied.

Rubber.—The area under rubber in South India is 58,956 acres and the export during the calendar year 1923 amounted to 8,411,018lb.

The restriction scheme came into force from 1st November 1922, but did not apply to South India where natural restriction is compulsory on account of the short tapping season. The result of the scheme has been justified in the rise of the price of rubber in the London market.

The Rubber Mycologist has carried out research on several problems the most important of which is the question of protecting the trees from the ravages of *Phytophthora Meadii* which produces the abnormal leaf-fall. All attempts at controlling this disease by way of manuring failed and the only effectual method found is spraying with Bordeaux Mixture. Not only has this been proved an effectual remedy, but it has been shown to be quite practical and economical as an estate practice, though several difficulties, chiefly connected with a really suitable machine, remain to be solved.

It has been found that stripe canker can be prevented by the application of antiseptics to the tapping cut and it is not necessary therefore to suffer loss of crop by adopting a system of shallow tapp-

University career for at least a year in the particular aspects of chemistry and physics which bear upon the problems that will lie before him, and should have also had training in research. I do not mean by this that he ought to confine his attention to rubber, or to any other single tropical product. He will be continually faced by problems the solution of which will depend upon knowledge outside the range of immediate subject, and for this reason it is necessary for him to possess a good all-round training. Moreover, it is not even desirable that he should have devoted his earlier research experience merely to the "getting up" of the technique of such a subject as rubber. His time will have been better spent, from the point of view of the industry, in acquiring a knowledge of the methods and technique of physical and organic chemistry generally. Such training will be invaluable to him when he has to apply himself to the problems that will confront him in the laboratory and the factory. A man in a narrow groove is seldom or never an employee of the greatest value.

(2) Turning now to the biological staff, the training of these men should also, *mutatis mutandis*, be conducted on broad lines analogous to those insisted on for the chemists. It is essential that, in addition to their botanical acquirements, they should have had a sound training in chemistry, not to speak of other branches of science. It may be said generally that at least from two to two and a-half years are necessary to train a man properly for economic botany or entomology *after* he has received his general scientific groundwork. The particular line on which he is destined ultimately to specialise will appear during this period of his education. Thus a plant physiologist requires a much greater knowledge of chemistry and physics than a mycologist or entomologist who, on the other hand, needs to have at his fingers' ends a much more detailed knowledge of the actual plant diseases or insect pests and the technique for isolating and experimenting with them, than does the plant physiologist, and it is seldom that aptitude for both subjects is combined in one individual. A plant breeder, whose work is of a rather special kind, ought to have had practical training at one of the institutes that concerns itself with this work, and he ought to have worked under the direction of a recognised leader in genetics.

From the point of usefulness to the industry, it is essential that every officer should be equipped with as wide a general knowledge as possible of the sciences bearing on his special subject, but it is important that during his course of training he should not be tied down in any way to the study of the particular kind of physiology or the kind of mycology or bacteriology which may appear most likely to be immediately useful to him on the plantation. In a word, a man's ultimate usefulness will depend more upon the *breadth of outlook* which he acquires during his period of training, rather than upon

any *intensive knowledge of the problems which will confront him in the industry*. The latter knowledge will come soon enough when he gets to grips with the problems themselves, and the measure of success with which he is able to attack them will, other things being equal, chiefly depend upon the extent of general scientific knowledge which he is able to bring to bear upon them. Thus, I should entirely deprecate devoting a student's time to the study of rubber plantations problems. He will learn more about these problems, and learn it better (if his previous training has been what it ought to be), in two months on the plantations than he can possibly do in a year's work in Europe. As a student, away from actual contact with the industry, his time will be far more usefully spent in laying a sound foundation of scientific knowledge and ideas, and of the technique and practice of research.

In addition, however to laboratory experience, a good officer ought to have had, during his University training, some experience in the field, in order to enable him to grasp those fundamental principles which underlie so many of the reactions of plants to their environment.

For example, many problems of disease often resolve themselves into problems of nutrition, or of aeration of the soil, or of water supply, etc. When any of these conditions are defective the plant easily may—and experience shows it actually does—lose the curious quality of *resistance to infection*, and this is equally true whether one is dealing with the infection of a fungus or with the depredations of an insect pest. For example, it is known that inadequate aeration of the soil through deposit of silt, as a consequence of defective or deficient drainage, may so reduce the vitality of the plant by affecting the supply of oxygen to its roots as to render it an easy prey to the attack of pests and diseases which, under better conditions, it would successfully resist. In making these statements I am quoting from personal observation and experience, and they can easily be verified and amplified by anyone who knows how and where to look for appropriate examples.

It will be of very great advantage to a scientific officer, and still more to his employers, if, after being selected for a post but before he is sent to take up the duties attaching to it, he is afforded an opportunity of working, say for six months, at some tropical institution such as the Imperial College of Tropical Agriculture in the West Indies. There are other institutions which are also capable of affording similar advantages. The increased value of a man who has had this additional experience will be due to the circumstance that he has learnt, under skilled guidance and under specially advantageous conditions, to focus his knowledge upon tropical agriculture in the wider sense, and thus he will be enabled

to short-circuit the gap between work in a European laboratory and practice in the Tropics. He will get a wider outlook on tropical problems generally, and he ought to be able thereby—and far more effectively—to concentrate on the particular ones which will face him in any individual district. I have no hesitation in saying that any expense incurred in giving an officer this additional training will be repaid to his employers many times over.

It is, of course, clearly recognised that the troubles which arise from the actual pests on the plantation are largely fungal or bacterial on the one hand, and animal—chiefly insect—on the other. But it would be unreasonable to expect that a man can qualify as a specialist fitted to be entrusted with the responsibility of serving a plantation industry in dealing with pests both of animal and of vegetable origin and alike. The field of knowledge is too wide for any one man to cover. But I should like to record it as my opinion that the entomologist, like the botanist, in addition to having a sound knowledge of entomology together with the remedial measures which such knowledge indicates, should at the same time be keenly alive to the influence of agricultural conditions upon the incidence of insect epidemics. This aspect of an entomologist's scientific training too often escapes attention.

B. When a trained scientific officer reaches the district to which he is appointed, there appear to be two main types of work which may lie in front of him—namely, either that of scientific investigation, or that of the dissemination of information by means of visits to plantations, factories, and the like. Some men have greater aptitude for one kind of work than the other, and it ought to be clearly understood that it is a waste of effort, as well as of money, to be continually asking a man whose mind is set on investigation to leave his proper work in order to take over what might be described as "missionary work." By this I do not mean that a man whose main interest lies in research should be confined to his laboratory; some practical experience, such as visits to plantations or factories can afford, he ought certainly to have. What I do mean is that to take a man of the research type and continually to be calling him off from his proper work to visit plantations for the purpose of giving advice is to misuse him, and this means a waste of money. A good investigator is not necessarily a good adviser to a planter who wants quick results, and interruption of research too often involves unnecessary postponement, or even the loss, of results of far-reaching importance to industry. Naturally, it is not possible to lay down hard-and-fast rules, but the distinction I have here drawn is a real one, and wherever possible it should be kept in mind in organising a research staff.

It is also essential that a man whose time is mainly to be spent as a scientific adviser and in disseminating information should have had a sound preliminary scientific training similar to that already laid down for the investigator, but it will be turned to a different account. His material and point of view are different. His material is the plantation itself and the men who are employed in it, and he has to study both the one and the other. At the same time, it is necessary that he should be in close touch with the sources of that new knowledge which the scientific investigators are continually acquiring. Without this, and without an adequate initial training, his work may easily be worse than useless. With it, provided he has the necessary tact and possesses practical knowledge and sense, he should form an indispensable link between the research staff and the planter. The distinction I have here attempted to draw applies, though in somewhat different degree, to other cases. Probably the entomologist, more than anyone else, can combine real research with advisory functions with least loss of general efficiency.

C. The higher agricultural officers will naturally be concerned mainly or entirely with administrative and advisory work, but in their case also a scientific foundation is absolutely essential. The kind of agriculturist who only has a "practical" knowledge of the land is not the kind of person, who in the long run, is at all likely to be of most use to the industry. There are already too many examples of mistakes in agricultural practice due to the lack of the right kind of preliminary scientific training. In a word, the agricultural officer must have been trained in the *principles* of agricultural *science*, as well as in the *practice* of agricultural *art*.

One further general remark I should like to make in conclusion. All scientific officers tied down to their own districts tend to become out of date, or at any rate "stale," unless they are given the opportunity at fairly frequent intervals (say, every four years) of coming into personal contact with the progress of work as it is going on in leading laboratories and institutes, whether in Europe or in America. It ought to be clearly recognised that it is of the greatest advantage to every employer to see to it that the scientific staff are sent at sufficiently frequent intervals to renew their acquaintance with men working at home, and thus to have an opportunity for acquiring experience of the new knowledge which is continually being made. "Study leave," as it is often called, is a first-class investment from the employers' point of view, whether that employer be an individual, a syndicate or a Colonial Government.

NILGIRI PLANTERS' ASSOCIATION.

Proceedings of a General Meeting of the Nilgiri Planters'
Association held on Thursday 11th Dec. 1924 at
11 A. M in the Collector's Office Ootacamund.

Present:—Capt. E. G. Windle, (Chairman), Messrs. Percy Reed, N. C. Whitton, A. S. Dandison, L. F. Lake, R. L. Stuart, J. Erskine. J.B. Leslie-Rogers and C.W. Hayne (Hon. Sec.)

Visitors. Mr. H. G. Nettlefield D. S. P.

Proceedings. Notice calling the meeting was read.

Minutes of previous meeting were taken as read.

Delegate's Report :—

MR. CHAIRMAN AND GENTLEMEN,

I will refer you to the Planters Chronicle of 24-10-25 in which all the resolutions passed at the meeting have been published and then take the Agenda item by item.

The first four hardly need comment. A copy of the report of the Executive Committee has been sent out to all members as also the accounts. The election of Chairman and Office Bearers appears in the P. C.

No. 5. Nothing much was said on this subject.

No. 6. *Planters' Chronicle.* The first comment on this was to the effect that it should be made more interesting. Various views were expressed on the matter. The subject "How to win at lawn tennis" was brought up as hardly being in accordance with the Chronicle, with the result a resolution was passed and published with which I think you will agree.

No. 7. *Planters Provident Fund.* Some discussion took place on this subject resulting in the resolution that has been passed.

No. 8. *U. P. A. S. I. Sports Club.* The discussion which took place on this subject embraced the matter of a President and Committee and of holding the planters week in Ooty again. The names that have been chosen need no further remarks.

No. 9. From the resolutions that have appeared you will see that the meeting was in favour of a paid politician.

Nos. 12, 13. *Planting Member.* Mr. Congreve has promised to carry on till his departure for England.

Nos. 14, 15, 16. *Communications*. No comments beyond that other Associations were supported in their resolutions. I may remark that Mr. Congreve said that no grants would be given for roads with a view to converting and classifying them as trunk roads.

Nos. 17, 18, 19, 20. *Labour Rules*. The West Coast Planters' Association agreed to their resolution coming into force as from 1st December thereby giving time for registration of Maistries etc.

Labour Dept. The Anamalai Resolution was thoroughly discussed, thereby leading to a special committee being chosen to sift the resolution as it first appeared. The special committee majority report being adopted.

Nos. 21, 22, 23. The resolutions put forward under Tea, Rubber, and Coffee were supported.

I have no comments on the rest of the items.

In conclusion Gentlemen I thank you for the honour you have done me in sending me as your delegate to Bangalore.

On conclusion of the report the meeting passed a vote of thanks to the Delegate.

U. P. A. S. I. Sports Club. Mr. Whitton addressed the meeting on this subject and one of the points, brought up for discussion was the appointing of a representative. On discussion Col. L. L. Porter was appointed, and the Hon. Sec. instructed to write to him to that effect.

Miscellaneous Correspondence. Read letter from Messrs. R. C. Morris and S. A. Smith stating their intention of resigning the N. P. A. as from 1-4-25 and joining the Mysore P. A. Recorded.

Read letter from Secretary U. P. A. S. I. in reply to Hon. Sec. ref. Income Tax and rent free Quarters. Decided to adopt the same rates agreed to by the Collectors of Coimbatore and Malabar with the sanction of the Collector of the Nilgiris.

Read letter from Secretary U. P. A. S. I. Ref. "Monthly District Notes" to be sent in to Ed. P. C. Decided that the Hon. Secretary send in Notes.

Read letter from Sec. U. P. A. S. I. ref. Cinchona Planting. The opinion of this Association is that under present Conditions no Capital will forthcoming.

Letter from Mr. M. J. Patoir, Amsterdam, to Sec. U. P. A. S. I. was put before the meeting.

Read Correspondence between D. S. P. Nilgiris and Hon. Sec. re thefts of tea seed and plants. On discussion it was proposed by Mr. Read and seconded by Capt. Windle that "Mr. Waddington endeavour to use every influence in assisting to push the passing of the Pilgrage Bill through the Council and to have it extended to Plant-

ing Districts in order to stop the very serious thefts of Coffee, Tea, Tea prunings, Tea plants and Seeds from the nurseries and clearings" Carried.

The gist of letters and proceedings of the Coonoor Municipal Council with reference to the Lawley Hospital were put before the meeting and recorded.

Read and recorded the suggestion by the District Board of Rs. 8 for each injection for relapsing fever and its decision to reduce the fee to Rs. 7.

Read Extracts of District Health Officer's report, decided to circulate amongst members for closer persual.

With a vote of thanks to Mr. Nettelfield D. S. P., Nilgiris, for attending the meeting, the Collector for the use of the room, and to the Chair the meeting terminated.

CAPT. E. G. WINDLE,
Chairman.

C. W. HAYNE,
Hon. Sec. N. P. A

PLANTERS' WEEK.

(21ST TO 29TH MARCH 1925).

Ootacamund Club.

The following letter from the Secretary of the Ootacamund Club is published for information.

OOTACAMUND CLUB,
OOTACAMUND,
20th December 1924,

N. C. WHITTON Esq.,
President.

U. P. A. S I. Sports Club,
OOTACAMUND.

DEAR SIR,

Your letter of the 14th instant was placed before my Committee on the 18th instant, I give below for your information their resolution

"Mr. Whitton should be informed that during the Planters' Week visiting Planters will be admitted as Honorary Members of the Club without payment of Subscription under Article 4, provided their stay does not exceed 10 days."

"If their stay exceeds 10 days they will be charged Honorary Members' Subscription under Article 19. The same rule will apply to their ladies using Woodside."

Yours faithfully,

(Sd.) J. P. BENN, LT. COL.

Secretary Ootacamund Club.

The thanks of the Planters have been tendered to the Ootacamund Club for the concession under Article 4. Visiting Planters should arrange "to be introduced" by a member.

Accommodation.

Rooms are now being booked in Ootacamund for Planters' Week. Out of Season rates are being charged. The following list of Hotels, Boarding Houses etc. is being published for information :—

NAME.	ADDRESS.
"Glen Ellis"	Mrs. A. H. Steele.
"Glyngarth"	Mrs. Villiers Stewart.
"Hotel Cecil"	The Proprietor.
"Ootacamund Club"	The Secretary.
"Rosefield"	Miss De Merville.
"Savoy Hotel"	The Manager.
"Westward Ho"	Mrs. T. Pardey.
"Willingdon House"	The Manageress.

Planters experiencing difficulty in getting accommodation for Planters week should communicate with the undersigned.

Rugby Foot-Ball.

The Rugby Football match. The Anamallais Vs. "The Rest" will be played on Monday March the 23rd.

Planters wishing to play for "The Rest" team are asked to send in their names to the undersigned, before the 15th of February, stating the positions they have been accustomed to play in.

"The Rest" team will be captained by Mr. H. H. English (Mysore) and Mr. J. C. Blackham (Nilgiri-Wynaad) the former Irish International will lead the forwards.

A trial game is being arranged, "The Rest" Vs. Wellington for Saturday March 21st.

"The Rest" team will play in white.

Ootacamund, }
5th January 1925. }

N. C. WHITTON.
President,
U. P. A. S. I. Sports Club.

COVER PLANTS IN MALAYA.

The following has been issued by Mr. J. N. Milsum, Acting Agriculturist, Government Plantations, as Circular No. 4, 1924, under the auspices of the Department of Agriculture:

The object of these notes is to present in a concise form information regarding the most suitable cover plants for employment on estates, with special reference to the requirements of various types of soil and conditions obtaining in this country. The advantages resulting from the judicious use of cover plants are well known and it is not proposed here to deal in detail with this aspect of the subject.

On undulating land, cover plants should be planted early after the land has been cleared, otherwise, owing to loss of surface soil by wash, difficulty will be experienced in establishing them, while a system of siltpits is an advantage. On steep land, siltpits or bunds are essential if the surface soil is to be retained, and where dense shade obtains the soil may be held up by planting rows of *Citronella* grass in contour.

It is doubtful, however, whether cover crops do ever effect any saving in weeding costs, because as far as general experience goes

with regard to actual costs, clean weeding cannot be equalled for cheapness. The value of cover plants lies in the physical improvement of the soil, which is retained in a moist condition even during the driest weather, and the check to the loss of surface humus resulting from the action of rain on exposed land.

A large collection of cover plants and green manures is under trial at the Experimental Plantation, Serdang, Selangor, but so far the majority of them have not been tested under actual estate conditions in Malaya and no further mention of them will be made. In the opinion of the writer, the following are the most suitable for general use.

BUTTERFLY PEA. *Centrosema Plumieri*.

This well-known cover plant has been extensively used in the past and, on heavy well-drained soil, it forms undoubtedly an efficient cover. It succeeds best on new clearings but usually dies out as the shade of the rubber trees deepens. Seed is readily available, germination good, and there is little difficulty in establishing this cover. Although this plant has a climbing habit, it is not objectionable in this respect, as it is easily kept from growing up young rubber trees with a small amount of attention. In new clearings that have been silt-pitted, seeds may be sown on the soil from the pits and will assist in keeping the mounds up.

The seeds should be sown in wet weather, preferably at the commencement of the rainy season, in order that the cover may become well established before the dry weather sets in. The seeds are dibbled into the soil, just below the surface, at a distance of about three feet apart either way, the soil being pressed down by the foot. From three to four pounds of seed are required to sow an acre. The plants form a good cover within four to six months from sowing. Number of seeds per pound is about 2,000.

***Centrosema pubescens*.**

Seed of this cover plant has recently been received from the Netherlands East Indies, where this plant appears to have shown considerable promise under conditions similar for the successful employment of *C. Plumieri*. Results to date at the Experimental Plantations here confirm this, and there is every indication of this species becoming an important cover plant for estates in Malaya. *C. pubescens* is distinguished from the former plant by its smaller leaves, pale mauve flowers and minute stipules. The seed is about a third of the size of that of the Butterfly pea and more flattened in appearance. The ground is covered by this plant within five to six months, with a mass of foliage as good as in the case of *C. Plumieri*.

A feature of this species is the number of tendrils produced; these having a climbing habit and a choking effect on weeds. On open land the height of the plants is usually about one foot.

The planting distance recommended is three feet apart either way, and with two seeds to the hole one pound of seed is stated to be sufficient to plant from $1\frac{1}{2}$ to 2 acres. So far seed is not obtainable in this country but may be purchased from Java and Sumatra. Number of seeds per pound about 16,000.

SARAWAK BEAN. *Dolichos Hosei*, syn; *Vigna oligosperma*.

This cover, frequently referred to as 'Vigna,' has become very popular recently and is probably in more demand than any other for general use on rubber estates. It is best suited to a porous soil and, on the better types of land, will make wonderful growth even under dense shade. The Sarawak bean is frequently used as a cover plant under coconuts, and it is an excellent plant for this purpose. It is low growing, forming a dense mat of leaves which in time become a layer of humus matter available for the crop.

Seeds are produced in small quantity and therefore the general method of propagation is from cuttings of mature growths. It is stated that the best means to secure seeds is to place sticks for the plant to climb up, when pods are formed. Seeds are obtainable from Sumatra but are expensive; the price prohibits the sowing of seeds direct in the field and necessitates a stock being raised in nursery beds. The soil should be in a moist condition and well cultivated. The seeds are sown about a foot apart either way and lightly covered with a thin layer ofalang, to prevent the seeds being washed out by the rain. Germination takes place in ten days' time and the alang is then removed. The cuttings are ready for removal within three months from time of sowing, after which a flush of new growth will appear on the beds.

Planting in the field should be done in moist weather, on land free from weeds. Low ridges of surface soil are scraped up with the changkol, on the same level as far as possible. On average land the ridges may be spaced about three feet apart but at double this distance on good land. The cuttings are taken with three joints and pressed firmly into the soil, with two joints below the surface. In suitable weather, growth is rapid and the land is well covered in six months. It is useless to try and establish this cover where a bad surface wash is experienced as the ridges will become washed away before the

cover has time to root into the soil. On such land, silt-pitting is necessary before planting the cover. Number of seeds per pound about 18,000.

GIANT MIMOSA. *Mimosa invisa*.

This plant is not as popular as formerly on account of its habit of dying back during dry weather, and its objectionable prickles which make it difficult for the labourers to work on the land. During very dry weather the plant is sometimes liable to catch fire. On rough land and boundaries of the estate, it may be used with success, and for such situations it is to be recommended. Seeds are produced and the plant spreads by this means, keeping down lalang and other weeds. It is a remarkably strong growing cover; the plant frequently becomes so tall as to require to be beaten back with sticks.

The seed is sown thinly on ridges of surface soil between the rubber trees, the distance between the ridges depending on the quality of the soil. On good land, one such ridge only between the rows of trees is often sown, but on average soil two or three are necessary. From one to three pounds of seeds are required to sow an acre in this manner.

Giant mimosa is sometimes employed to keep down lalang, and when used for this purpose, small pockets are dug in the lalang area at distances of four to six feet apart. The seeds are sown thinly in these pockets and the plants grow over the surrounding grass gradually smothering it.

Seed of this cover is seldom harvested in Malaya but is sometimes advertised for sale. Supplies may be obtained from Sumatra at a reasonable price. Number of seeds per pound about 68,000.

SHEVAROY PLANTERS' ASSOCIATION.

(INCORPORATED).

Proceedings of an Extraordinary General Meeting of the
Shevaroy Planters' Association (Incor.) held at the
Victoria Rooms, Yercaud, on Friday the
28th of November, 1924 at 2 p. m.

Members Present. Mrs. Cayley, Capt. E. H. A. Travers Drapes
(Chairman), Messrs. W. H. A. Lechler, W. Rahm, N.
M. Hight, C. L. Hight, A. R. D'Silva, and Mr. V. L.
Travers Drapes (Hon. Secretary).

AGENDA.

1. Notice calling the Meeting was read by the Chairman.

2. *S. P. A. Articles of Association (Alteration).*

The Chairman then read the Resolution passed at the Extraordinary General Meeting of the Association held at the Victoria Rooms, Yercaud, on Friday 31st October 1924 as follows : —

“ That the S. P. A. Articles of Association be altered in the manner following ”.

(A) That the following words be deleted from Article 6.

1. “ Hundred acres a fraction of a unit exceeding 50 acres shall count as one unit of hundred acres ” Also the word,

2. “ Hundred ”.

(B) That the following be added to Article 6 in place thereof.

1. “ Twenty-five acres ; a fraction of a unit exceeding 12 acres shall count as one unit of 25 acres ”.

(2) “ Twenty-five ”.

Proposed by Mr. N. M. Hight, and seconded by Mr. W. Rahm.

“ That the Special Resolution, altering Article 6 of the S. P. A. Articles of Association, as passed at the Extr. General Meeting held at the Victoria Rooms, on Friday 31st October 1924 be and is hereby duly confirmed ”.

UNANIMOUSLY CARRIED.

With a vote of thanks to the Chair the Meeting terminated.

E. H. A. TRAVERS DRAPES,
Chairman.

V. L. TRAVERS DRAPES,
Hon. Secretary.

The Planters' Chronicle.

Recognised as the Official Organ of the U. P. M. S. I., Incorporated.

Secretary's Registered Telegraphic Address "UPASI," MADRAS.

Telegraphic Address— "CHRONICLE," Coimbatore.

VOL. XX No. 3]

JANUARY, 17TH 1925.

[PRICE AS 8.

CONTENTS.

	PAGE.		PAGE.
Indians in Ceylon ...	...	West Coast Planters' Associa-	...
Planting Company News ...	43	tion ...	52
District Notes ...	46	Tea Prices ...	54
		Planters' Week ...	56

PRICE OF "A" COFFEE.

By CABLE—LONDON, 16th January, 1925.

175s./—per cwt. Market Steady.

INDIANS IN CEYLON.

One would have thought that the scaremongers had exhausted their inventive faculties on the subject of Indian Labour in Ceylon, or, for that matter, of Indian Labour in any other country than India, but that this is not the case is evinced by the succession of articles which have appeared of late in our Madras contemporary, *the Hindu*. Having previously dealt with the F. M. S., Assam etc., Ceylon's turn has come, and as it is not the first time that the island has been the object of their attentions, we can only suggest that her detractors have come back to the beginning of the circle again and that the present effort will be followed up by similar mis-statements regarding other countries which, like Ceylon, have somehow an attraction for the Indian labourer. This attraction is a peculiar thing, if we are to believe the harrowing tales of conditions abroad, and it does not seem to occur to those responsible for these attacks, that year after year, in spite of the alleged "Malarial climate, bad sanitation, dirty housing arrangements and less than starvation wages", coolies insist on returning to places like Ceylon and the F. M.S. The

words we have put between inverted commas have been taken from a letter appearing in the Hindu of 16th January. The gentleman said to be responsible for them is the Hon. S. R. Muhomad Sultan, Indian Member, Ceylon Legislative Council, who goes on to say that even if we accept Sir Marcus Fernando's estimate of the Family Budget of the Estate cooly, which shows an annual saving of Rs. 15/-, this saving together with chronic malaria and enlargement of spleen are the only features of the Estate coolies' Balance Sheet at the end of the year.

It has more than once been pointed out to us that it is hopeless protesting against statements such as these and we have consequently passed over in silence, on more than one occasion, the most fantastic assertions by interested people on the subject of Indian labour abroad. It is possible that this attitude is wrong. It is certainly not sufficiently realised that these attacks on planters in other countries have their reaction on the industry in South India. It might be thought that planters here would welcome any attempt to restrict emigration since every cooly who can be persuaded not to leave India becomes a potential recruit for work on South Indian Estates. We have said before, and have so far no reason for changing our minds, that this is undoubtedly the attitude of the South Indian landholder. So far is it from being the attitude of South Indian planters, that they have always looked with a friendly eye on the activities of Ceylon, the F. M. S. and others, and have invariably sought a working agreement rather than privilege. The labour market today is a matter of open competition, so much so that no country or industry desirous of recruiting labour can afford to allow conditions to degenerate in the manner suggested by Mr. Muhomad Sultan. It is only by making conditions more and more attractive that labour can be drawn to the planting or any other industry and here lies the crux of the whole situation, the key to the agitation to which we are referring. The only ways of preventing emigration are by direct legislation which means interference with the liberty of the subject or by making conditions at home such that the attraction lies there and not abroad. When Mr. Muhomad Sultan and his friends have grasped these fundamental truths, possibly they may divert their energies to a more profitable channel, viz., the improvement of Indian village conditions where his description of estate conditions more truthfully applies. When they have cleaned up a bit at home and improved the lot of the labourer at the hands of his own countrymen in India, it will be time to turn to conditions elsewhere. They could then approach the question of emigration from a different standpoint, that of insisting on the emigrant obtaining abroad, conditions of life equal to those obtaining at home.

Answers to Correspondents.

Nescio:—It is probable he was not present.

Heotigambo:—Not up to your usual standard.

—Ed. P. C.

PLANTING COMPANY NEWS

Indian Peninsula Rubber and Tea Estates, Ltd.

The fifth annual ordinary general meeting of the shareholders of the Indian Peninsula Rubber and Tea Estates, Ltd., was held at the offices of the company, Mincing Lane House, 59, Eastcheap, London, E. C., on Tuesday, 16th December, 1924, Mr. Herbert Wright (chairman of the company) presiding.

Mr. E. H. Dorn, representing the secretaries (The Rubber Estate Agency, Ltd.), having read the notice convening the meeting and the auditors' report,

The Chairman said: Ladies and gentlemen, as the directors' report and statement of accounts has been in your hands for the usual time, I will, with your permission, take them as read. I now formally move that the directors' report and statement of accounts for the year ended 30th June, 1924, as presented, be and are hereby adopted. At the conclusion of my remarks I will ask Mr. Read to second that resolution. Before proceeding to review the results of the year, I think it will be your desire that we express our thanks to our resident director, Captain Windle, for the service he has rendered to the company in the East.

I will now ask you to go through a few of the items in the accounts as submitted, starting first with the trading account. You will observe that the eastern expenditure totalled £8,513, as against £7,224 in the previous year. The increase was due entirely to our recommencing tapping operations. You will remember that previously the price of the commodity was not such as to allow us to entertain any prospect of profit. A sum of £1,000 has been written off stores on estates and advances on the advice of our resident director, and had it not been for the writing off of these advances the accounts for the year would have shown a profit. Difference in exchange accounts for £119, compared with a little over £12 in the previous year. I am sorry to say that the rupee is still in the neighbourhood of 1s. 6d., and, therefore, that item will probably recur in our next year's accounts. Directors' fees and London office expenses are practically the same as before. The proceeds from sales totalled £6,709, as against £5,164 in the previous year. The coffee crop, as was foreshadowed at our last meeting, was small, being the equivalent of about 400 cwt. of prepared coffee. This coffee realised £1,803, being sold at an average of 90s. per cwt. as compared with 83s. in the previous year. The rubber crop, you will notice, accounts for quite a large item. I should explain here, in view of the letters I have received from various shareholders, that owing to the peculiar climate prevailing on the estates, we are not able to tap throughout the year; from January to the end of April tapping practically stops, the crop being harvested during a period of eight months. I lay particular stress upon that point because shareholders appear to

be under a misapprehension, calculating the annual yield upon last month's return. The average gross price was a little over 1s. per lb., the balance of 18,813 lb. being taken into the books at just under 1s. per lb. Sundry receipts, amounting to £120, represent proceeds from the sale of nuts, cardamoms, and one or two other items. Receipts from investments amount to £2,510, and show a slight increase of about £100 over that of the previous year. The total yield from investments exceeded 5 per cent., despite the fact that some of the rubber investments did not pay a dividend. You will also observe that we made a commission of £176 in underwriting, which was offered to this company by our commercial agents. The trading account shows a loss of £976, which, as already stated, was entirely due to our writing off £1,000 from advances.

With regard to the profit and loss account. the interests on calls paid in advance was £79. This, as you know, is in respect of 5 per cent. on 8,250 shares on which 3s. had been paid in advance by the shareholders, and if the capital readjustments set out in the resolutions, to be considered by you later, are agreed, this item will not recur in next year's accounts. In the balance sheet you will observe that the calls paid in advance total £1,327 10s., whilst sundry creditors stand at £1,072. On the other side of the balance sheet. an item of £3,900 is given representing the value placed on the foodstuff areas. If there are any members present who have held shares for any considerable time, they will remember that some years ago we sold our foodstuff area to a person resident in India on an annual payment system. I am sorry to say that that arrangement does not appear to be working satisfactorily for this company, and your directors may deem it advisable to enter into repossession of that particular area £100 only having so far been paid by the original purchaser. Investments at or under cost total £48,983, and are given in detail in the body of the report. Since the report was issued £1,000 from New South Wales loan, 3½ per cent., has been redeemed, and our holding of Jeram shares has been slightly increased. The market value of the investments at 30th June was £52,358. That showed an appreciation over cost of £3,374, and since the accounts were closed I am sure you will be glad to learn that the appreciation to which I have referred has increased to £7,000. The investments are distributed as follows:—48 per cent. in Government and Colonial stocks, 42 per cent. in ordinary rubber shares, debentures and deposit notes, and the balance of 10 per cent. in banks and industrials. If the reconstruction scheme which will shortly be placed before you meets with your approval, we hope to take advantage of the liquidity of these investments. So much, then, for finance. Since the report was issued a cable has been received which shows that the November crops were 19,000 lb. of rubber and 480 cwt. of coffee, making the totals harvested in five months 81,000 lb. of rubber, against an estimate for the year of 105,000 lb., and 560 cwt. of coffee, as compared with an estimate of 1,200 cwt. Many of you will be aware

that during this year certain parts of India suffered severely from disastrous floods. Our estates, however, did not suffer any damage. So far as this meeting is concerned, there is practically nothing more to add except to assure you that the object of the directors has been in accordance with the agreement arrived at a few years ago, when the directors conferred with some of the largest shareholders and agreed to keep the estates in a saleable condition without loss, I will now ask Mr. Read to second the resolution.

Mr. T. K. Read: The chairman has gone into the full details of the accounts and the report with such meticulous care that I do not think, at this stage at any rate, I need make any further remarks. I beg, therefore to second the resolution proposed by the chairman.

In answer to a question by a shareholder, who referred to the option in connection with the Eastern Sumatra debentures, the chairman said the company would secure an option to subscribe at par for shares equal in nominal amount to half the debentures held. This option would be granted in place of the conversion rights hitherto attaching to the debentures.

The resolution was then put to the meeting by the chairman and declared carried unanimously.

The Chairman: I have now pleasure to move that Mr. P. K. Read be and is hereby re-elected a director of the company. Old shareholders are well aware of the services rendered by Mr. Read to this company in past years, and it is with very great pleasure indeed that I propose his re-election.

Mr. Skinner seconded the resolution, which was declared carried unanimously, and the proceedings of the annual meeting terminated with the re-appointment as auditors of Messrs. Naftel, Rutherford and Marshall.

Mr. Dorn then read the notice convening the extraordinary general meeting, which contained the following resolutions:—

1. "That the nominal capital of the company be reduced from £ 155,000 divided into 155,000 shares of £1 each to £96,593 12s. od. divided into 129,792 shares of 11s. each and 25,208 shares of £1 each and that such reduction be effected (a) by cancelling capital which has been lost or is unrepresented by available assets to the extent of 6s. per share upon each of the said 129,792 shares which have been issued and are outstanding. (b) by extinguishing the liability of 3s. per share upon each of 121,535 shares (part of the said 129,792 shares) which are paid up to the extent of 17s. per share in respect of share capital not paid up and in respect of which there

is an outstanding liability of 3s. per share (including the 4,854 shares mentioned below). (c) by repaying to the holders of 7 shares of £1 each (part of the said 129,792 shares) which are fully paid up the sum of 3s. per share which is in excess of the wants of the company, (d) by repaying to the holders of 8,250 shares, (part of the said 129,792 shares) in respect, of which 17s. per share has been paid up and the remaining 3s. per share has been paid in advance of calls, the amount so paid in advance of calls, which is in excess of the wants of the company, (e) by confirming (and the company does hereby confirm) the repayment to the holders of 4,854 shares (part of the 129,792 shares) in respect of which 17s. per share has been paid up and the remaining 3s. per share was formerly paid in advance of calls of the sum of 3s. per share so paid in advance of calls as aforesaid, and (f) by reducing the nominal amount of each of the issued shares of the company from £1 to 11s."

2. "That immediately upon the reduction of capital to be effected by Resolution No. 1 taking effect, the capital of the company be increased to its former amount, viz., £155,000. by the creation of 1,168,128 new shares of 1s. each to rank *pari passu* in all respects with the remaining shares in the capital of the company."

3. "That upon the reduction of capital to be effected by Resolution No. 1 taking effect each of the 129,792 issued shares of 11s. each resulting from such reduction to be sub-divided into eleven shares of 1s. each and each of the 25,208 unissued shares of £1 each be sub-divided into twenty shares of 1s. each."

4. "That upon the sub-division of the share capital of the company into shares of 1s. each being effected the shares of 1s. each resulting from such sub-division be consolidated into 1,550,000 shares of 2s. each."

These resolutions were dealt with *serialum*, were proposed by the chairman, seconded by Mr. Read, and declared carried unanimously, the chairman intimating that proxies representing about 60,000 shares had been received in favour of the scheme.

On the initiative of one of the shareholders, a vote of thanks was accorded the chairman and directors, and also the representatives in the East, and general approval was expressed as to the value to the shareholders of the reconstruction scheme.

DISTRICT NOTES.

Shevaroya.

The Shevaroya seem to be attracting the attention of Calcutta folk as a place to retire to in their declining years. Two families

from that far distant and busy City have settled here permanently within the past 2 years and now a third has bought one of the oldest houses, "Bryn Hyfdd". I'm not sure if I've got the spelling right though I have been told how to pronounce it. No one seems to know the name of the new Owner but it is very evident from the way he is demolishing and rebuilding and improving that he is a firm believer in "the old order changeth" but if he intends to give the house a new name with a few more vowels in it I don't think it will ever be known as anything but "Norfor Missy Vidu".

Health Week:—The energetic President of the Shevaroy Union Board assisted by the local M. O. and several Ladies of the Station are holding a Health and Baby Welfare week from to-day and valuable prizes are to be distributed on the last day to children under 3 years of age. Amongst other things there is to be a Magic Lantern Lecture by the District Health Officer, Womens' Meetings and Lectures on Health, and Special Services and Lectures in Churches and Special Poojahs and Prayers in Temples and Mosques.

Sport:—A Panther measuring 7' 10½" was shot quite close to Yercaud about a week ago. The methods by which it met its end can scarcely be designated as Sporting but nevertheless we are always glad to hear of the extermination of one of these pests as scarcely a month goes by without one of us losing a dog or some cattle and the Lantana on these Hills is so thick that shooting these vermin in the ordinary way is very often impossible. In this case the beast killed a donkey almost in the centre of the town and some of our Anglo-Indian Nimrods set a gun trap with 3 guns over the kill. The Panther came back that night and one of the 3 guns exploded and the charge caught the animal full in the body. It was tracked quite easily, as it bled all the way, to a neighbouring Hill where one of the trackers almost trod on it and then there was a "feu-de-joie" and if there isn't an argument as to who gave it the coup-de-grace, well there ought to be. Perhaps the length of the animal is explained.

Coffee Pests. This is of course an evergreen subject. Many of us have suffered a good deal from Die-back on the primaries of our Kents Coffee in New Clearings and as the branches were not bearing, and it occurred when there was no cold it seemed inexplicable. The first sign of the trouble is a drooping at the tips and a close examination of the branch reveals a small yellow discoloration about half way between the tip and the base of the primary. If it is then bent it snaps off at the point of discoloration and all that can be seen with the naked eye is what appears to be a little mildew inside the core of the wood with no trace of boring. If the branch is left alone it dies back, some times to the base and a dry stick with a tiny pin hole is left. On examination with a microscope however, at the point of breakage, 2 or 3 very tiny grubs can be seen and in one I found a little brown beetle. Several affected branches were sub-

mitted to an expert friend who has advised that all the branches were attacked by *Xyleborus Compactus*, a beetle allied to the Shot Hole Borer of Tea, known to attack Robusta Coffee but hitherto not known to be partial to Arabica. Perhaps our friend Mr. S. Sundararaman will be so kind to give us some advice in our Chronicle as to the best method to deal with this pest. A few traces of green bug have appeared and although there has been little or no rain for 2 months, the black fungus is appearing with it. One would think it impossible for the fungus to show itself under such dry conditions but there it is.

Crops. Most of us are more than half way through and some have finished.

Prices. Business has been done this month at Rs. 21 and Rs. 21/8 per bushel ex Store and Firms report offers of Rs. 94 to 95 per cwt. ex bags, cured,

SOUTH TRAVANCORE.

The Kalthuritty Valley Club.

A very successful meet was held on January 4th to celebrate the opening of the Kalthuritty Valley Club. By 8-30 a. m. most of the residents had gathered, and shortly after Messrs. Mackie, Lord, Dunn and Feltham arrived from Quilon, and Mr. Alexander from Shalika estate.

A Doubles Tennis Tournament had been arranged and play was soon in full swing. The two courts, although quite new, were in excellent condition and by lunch time the preliminary rounds had been played off.

After an excellent lunch very kindly given by Messrs. Hatherell and Jodrell the more energetic members played Bridge while others listened to selections on the gramophone.

An interesting match between Kalthuritty Valley and Quilon was played before Tea, Messrs. Feltham and Dunn representing Quilon and Messrs. Lodge and Millar the Valley.

In the first set Feltham and Dunn started off in good style winning the first three games. Lodge and Millar settled down after this and by crisp volleying and good driving soon pulled up and ran out winners by 6-4. The second set was not so evenly contested the Valley winning fairly easily by 6-3.

In the finals of the Doubles Tournament Mrs. Millar and T. G. Glen beat Messrs. Knight and Coghlan after three hard sets 4-6;

6-4; 6-4. Mrs. Millar's consistent driving and Mr. Glen's hard smashing at the net making them a strong couple.

Many thanks are due to the Honorary Secretary and Committee for their untiring efforts in getting all in readiness at so short a notice and while at present the building is of a temporary nature it is hoped before very long to erect a permanent one and have the Club well established.

The following were present:—

Mrs. Lodge
Miss. Jodrell
Mrs. Millar

Messrs Mackie, Lord, Dunn, Feltham, Alexander, Knight, White, Hatherell, Jodrell, Lodge, Millar, J. G. Glen, T. G. Glen, James, Coghlan, Cromb, Mactavish, Champion, Mortimer, Davidson, Stevenson, Cowdrey.

WEST COAST.

A little more rain than usual and cloudy weather was experienced during the past month, and on the whole it was a good cropping month for rubber Estates.

Cholera was again in evidence, and the Eddivanna Estate was again attacked, but luckily, the epidemic was stamped out fairly quickly. Both the Nilambur Doctor and the Health Inspector, Manjeri gave great help during the outbreak.

Trees were already showing signs of wintering towards the end of the month.

Malabar Special Police. A most successful sports was held at Areacode during Christmas week for the "B" Company of this Force. As this Special Force largely looks after the portion of the district where Rubber Estates are located, I include information about the Police Companies in these notes. Considering the small British Officer supervision they have, their discipline and general proficiency are very laudable.

Malappuram. Mr. Goodwin, Marconi's representative, who was in Malappuram for 3½ months in connection with the Special Police wireless sets and the installation of charging batteries in each camp returned to Bombay on 19th December. Captain Hart's Company of the 2nd Royal Ulster Rifles returned to Wellington after 6 months in Malappuram and was relieved by Captain Bolitho's Company which was previously here in the early part of 1924. There was a general

exodus for Christmas, Mr. J. Elliot, the D. S. P. and his wife going to Ootacamund, and also the Divisional Officer, Mr. Fraser, I. C. S., Captain Handy R. A. M. C., and his wife going to Bangalore and Lieut. Benson, Royal Ulster Rifles going to Wellington, Mr. E. H. Colebrook, Assistant Commandant, Malabar Special Police, went into camp at Areakode. They have now all returned.

Mr. Fraser, the Sub-Divisional Magistrate, has just left for a tour of inspection in the Laccadive Islands and is expected back by the 10th February.

Calicut. Most of the Calicut news have been reported in the papers. H. M. S. "Cairo" arrived in the roads on the 11th December and a dinner and dance were given to the officers at the Malabar Club on the 13th December. Between 60 and 70 people were present. The band of H. M. S. "Cairo" supplied the music and the next day there was a Cricket match between the Malabar Club and "Cairo" resulting in a victory for the Malabar Club. On Tuesday evening the officers of the "Cairo" gave a dance and supper on board, and those who were good sailors from Calicut, went to the ship and enjoyed themselves.

During December, in Calicut, apparently an excellent cold weather was experienced, the temperature going down to 65 degrees in the shade on some occasions. There have been a few cases of typhoid and plague around and in Calicut.

From the Bazaar it is reported that Money is very tight and there have been a few failures. Sardines have not yet put in an appearance and as a result fish guano and manure are scarce.

The following have returned from England recently Mr. and Mrs. Langley, and Messrs. C. E. M. Browne and A. R. Turner.

The prospects of crops are fair, and water supply sufficient.

The Camp of the Light Motor Patrol was held during the month and broke up on the 5th December. The attendance was poor in spite of a small contingent from the Mooply Valley. Captain Tait of the Royal Ulsters attended Camp and thanks are due to him for the good work he put in.

The Annual Bachelors' Ball was held on the 31st December at the Malabar Club and about 70 people attended. It was fancy dress and the band was supplied by the Royal Ulsters.

NILGIRI WYNAAD

Sporting. We congratulate the Pater-Familias of the District, in winning within 10 days, by his good horse "Nicaragua" two most coveted prizes.

Good luck to him and may he win many more.

Christmas. Was celebrated in the usual style at Deverashola.

Returning Residents. Mr. and Mrs. Fulcher, Governess and Family returned to Woodbriar from furlough on 26th, evening and were heartily welcomed by their Estate staff and coolies.

Mr. Keochlin of Glen Morgan Estate has also returned.

New companies. Periashola Tea Co., Ltd., has been most successfully subscribed for "Privately."

The Capital being Rs. 4,00,000, of which Rs. 3,00,000, are at present called up.

The Directors are. P. F. C. Jourdain Esq., Managing Director of Messrs. Aspinwall & Co., Ltd., Cochin. D. Mackintosh Esq., Periashola Estate, Gudalur, Nilgiris. J. S. Nicolls Esq., Planter, Deverashola Nilgiris. S. V. Edge Esq., Solicitor, Ootacamund, Nilgiris.

We wish this new floatation every success. We understand the Capital has been heavily over-subscribed, and are now waiting to hear what fate has befallen our small Applications, at the hands of the Board.

Honorary Secretary's Address. Will in future be Periashola Estate, Gudalur P. O, Nilgiris.

Weather. The effects of the good showers we had a few weeks ago, were most promising for good Crop in December and January, but that nasty old Hustler (the land wind) has considerably damped our anticipations.

Extensions. This District is being considerably opened out under Tea. Any old resident travelling between Gudalur, Devala and Nellacotta, will see a vast change.

Gup. Mr. Adkins of Prospect Estate is not expected back before February. Mr. P. A. Naylor, our Chairman, goes Home early next month. We all wish him Bon-Voyage, and a jolly good time at Home. During his absence Mr. R. Fowke of Mango Range, will act as Chairman.

Mr. and Mrs. Mackintosh, when motoring back from Woodbriar were nearly put over the Cud, by a reckless Cyclist, hurring on to a dance at Ooty.

Ouchterloney valley road. Big slip. Carts, Cars, etc., go back and forward daily, much to the relief of a certain gentleman, who visited this District, shortly after the Moonsoon and had to foot-slog about 9 Miles, and we hope he has gone away with better impressions and less painful feet.

New Church.—We understand that Mrs. J. H. Wapshare of Naduvattam has very kindly consented to lay the Foundation Stone of a New Church there.

The Members of the District wish them every success.

Snipe:—So far Snipe have been few and far between but are coming in, in large numbers and we wish the gentleman better luck next time he goes out and shoots for his dinner.

WEST COAST PLANTERS' ASSOCIATION.

Minutes of a Quarterly General Meeting of the above Association held at the Malabar Club, Calicut, at 10.45 A. M. on 10th January 1925.

Present:—Messrs. T. W. H. Fitchett (Chairman) C. Elphinstone (Messrs. Parry & Co.), R. Fetherstonhaugh, C. Thorne (Messrs. Peirce Leslie & Co. Ltd.), J. T. Murray, C. E. M. Browne and R. Lescher (Honorary Secretary), Mr. E. H. Colebrook (Visitor.)

Minutes of Last Meeting:—were read and confirmed.

Report of Delegates to Upasi Annual General Meeting:—Unfortunately neither of the Delegates could be present. Their report was as follows.—

"Mr. Chairman, Gentlemen,

I regret being unable to present my report in person, but a previous unavoidable business engagement prevents my attending your meeting.

The Book of Proceedings being before you there is very little for me to say. Your request that the Ernad Taluk as defined by certain boundaries should be included in Rule 14 was brought before the General Committee Meeting on the 20th. Mr. Nicolls requested that this rule should not come into force till December 1st, in order for him to have time to register already existing connections. As it was not a question of any further recruiting being done we conceded to his request after talking it over with Major Brock. Your resolution was therefore passed with this addition at the General Meeting (Book of Proceedings page 91.)

Political Representation. After considerable discussion Mr. Congreve's resolution was passed.

Post Offices. The majority of members present thought that Branch Postmasters had done their best during the floods considering the enormous difficulties they had to put up with. We got a resolution however passed requesting the Post Master General, Madras, to give Branch Postmasters instructions and sufficient authority, to act on their own initiative in cases of emergency.

Mr. F. H. Millar was elected as Rubber member of the Executive Committee. We were given no instructions on this matter and were rather at a loss who to vote for and would suggest that in future members of our Association be asked beforehand whether they are willing to act on the Executive Committee if asked,

and if they are not prepared to act themselves would they care to propose anyone. Again expressing my regret at being unable to be present at your meeting and trusting that the opinions expressed by Jackson and I at the meeting were according to your desires."

Yours faithfully,

(Sd.) H. R. CARSON PARKER.

Depreciation on Mundakayam Mycologist Station. This matter was fully discussed and the Meeting was not in favour of the resolution proposed by the Mundakayam Planters' Association.

Upasi Sports Club. Correspondence under this heading was read and the Honorary Secretary was instructed to send a cheque for Rs. 50 to the Sports Club, as a donation.

Anamallai Scheme for Reorganisation of the Labour Department. After some discussion the opinion of the meeting was that as all Members of the W. C. P. A., are in "A" class (except one Estate in Travancore) and therefore are not likely to be affected by the Scheme, it is unnecessary for this Association to give any expression of opinion for the time being.

But with regard to the subsidy to the Labour Department, the West Coast Planters Association would like to know to what extent the subsidy will be made. It is also of opinion that no further subsidy should be given without reference to the Parent Body.

British Empire Exhibition. The Association is of opinion that if Coffee is to be advertised and sold at Wembley, the whole cost must be borne by Coffee Planters and Upasi Funds are in no way to be used.

Labour. The following resolution was proposed by the Chairman and seconded by Mr. C. E. M. Browne.

"That the attention of the Director of the Labour Department be drawn to the resolution passed at the last Annual General Meeting of the U. P. A. S. I., Bangalore, which defined Planting areas in Malabar, and points out, that although outside Estates were asked to register existing Labour connections from these areas before December 1st, it is found that registration has been allowed to Wynaad Estates as late as January."

"As, in the meantime indiscriminate recruiting by Wynaad Estate Maistries has been going on within the area, this Association fails to see in what way they receive protection under the Labour Rules, and it further asks for an explanation as to the delay in action and registration by the Labour Department."

Rubber Growers Association. Proposed by Mr. C. E. M. Browne and seconded by Mr. T. W. H. Fitchett and carried.

"That the proposal to form a Rubber Committee from the South Indian Association is approved of, and that the Committee should be composed of

2 Representatives of the Mundakayam Planters Association.

1 Representative of the South Travancore Planters Association.

2 Representatives of the West Coast Planters Association.

1. Representative of the Mercantile interests.

(with power to add to their number, and all of whom should be Members of the Rubber Growers Association.)

European Association. Correspondence read and Honorary Secretary to appeal to all members to join the Association and those who are already members to increase their present subscriptions.

Roads. Proposed by Mr. R. Lescher and seconded by Mr. C. Thorne and carried.

"This Association strongly recommends to the notice of the Collector of Malabar the neglected condition of some of the roads in Ernad Taluk, and asks him to take the matter up firmly with the District Board and failing satisfaction from this Body, to the Government of Madras."

Correspondence. Notice of an Extraordinary General Meeting of the Upasi for 25th March 1925, was read. If a Delegate from the Association is necessary. one of the General Committee Members be asked to attend.

With a vote of thanks to the Chair and to the Malabar Club for the use of the room, the meeting terminated.

T. W. H. FITCHETT,
Chairman.

R. LESCHER,
Honorary Secretary.

TEA PRICES.

It was only a few months ago that tea prices came into prominence through the Budget and formed the subject of comment in these columns; and now we feel called upon again to mention them with a similar object to that of the last occasion—namely, to throw light upon certain statements which might be misleading if taken without context.

The whole matter arises from the comment excited by the present comparatively high retail prices of foodstuffs. In this conec-

ion our tea report was quoted last week by a London daily paper as saying: "Shipments from Calcutta for the second half of November were $14\frac{1}{2}$ million lbs. compared with $18\frac{1}{2}$ million lbs. last year, but the total shipments from the 1st April to 30th Nov. show an excess of over 8 million lbs."; the inference being that as there was more tea here now than at this time last year, shortage could not be a cause of high prices. It is not unnatural that such an opinion should be formed in view of the apparent facts and as they tend to convey the impression that there is an enormous surplus of tea it may be of practical use to examine the whole situation of Indian, the most important kind.

It is perfectly true that more Indian tea has been imported into this country in the period 1st June to the 30th November than during corresponding period last year; indeed, the figures for 1924 being 153,345,206 lbs. against 151,500,352 lbs. for 1923, there is an increase of nearly 2 million lbs. Of this total figure nearly 21 million lbs. have been re-exported compared with 18 million last year and over 112 million lbs. entered for home consumption, the 1923 figure being $111\frac{1}{2}$ million, so that in every case the present figures exceed those of last year by some thousands of lbs. These statistics as we have pointed out, may suggest to the uninitiated that the country is surfeited with tea and that the phrase "given away with a packet of tea," ought to have a more modern and literal application. Why, then, the high prices?

As is so very often the case, the reason lies in the country of production and while our reflections are in this direction we remember certain confused rumours concerning the Indian tea crop a few months ago when the possibility of a shortage inspired a good deal of forward buying. While, however, there has been no severe scarcity, the position as regards crops has all along been uncertain and the estimates of this year's production vary in their figures, some forecasting an amount equal to that of last year and others predicting a shortage of about a million lbs. Added to this, the world's consumption of tea is increasing, and a new feature of the demand is the activity on the Continent. In those facts lies the explanation of the high price of Indian tea, and after all the mystery and rumour in some quarters it is a little incongruous to find the solution of the problem at the door of the old familiar law of supply and demand. As we have been receiving a large quantity of tea during the past six months there will be less to arrive during the next half year. Merchants have taken a natural and irreproachable advantage of the situation, therefore, and the fact that some retailers have been able to sell tea to the public at a lower figure than that which would appear to be cost price is merely the result of earlier foresight, and the consumer is in the happy position of being able to buy some teas below the present London auction prices:—*Produce Market Review.*

PLANTERS' WEEK.**Accommodation.**

Rooms are now being booked in Ootacamund for Planters' Week. Out of Season rates are being charged. The following list of Hotels Boarding Houses etc. is published for information :—

NAME.		ADDRESS.
" Glen Ellis "	...	Mrs. A. H. Steele.
" Glyngarth "	...	Mrs. Villiers Stewart.
" Hotel Cecil "	...	The Proprietor.
" Ootacamund Club "	...	The Secretary.
" Rosefield "	...	Miss De Merville.
" Savoy Hotel "	...	The Manager.
" Westward Ho "	...	Mrs. T. Pardey.
" Willingdon House "	...	The Manageress.

Planters experiencing difficulty in getting accommodation for Planters week should communicate with the undersigned.

Rugby Foot-Ball.

The Rugby Football match. The Anamallais Vs. " The Rest " will be played on Monday March the 23rd.

Planters wishing to play for " The Rest " team are asked to send in their names to the undersigned, before the 15th of February, stating the positions they have been accustomed to play in.

" The Rest " team will be captained by Mr. H. H. English (Mysore) and Mr. J. C. Blackham (Nilgiri-Wynaad) the former Irish International will lead the forwards.

A trial game is being arranged, " The Rest " Vs. Wellington for Saturday March 21st.

" The Rest " team will play in white.

Ootacamund, }
5th January 1925. }

N. C. WHITTON.
President,
U. P. A. S. I. Sports Club.

SPECIAL ITEMS FOR PLANTERS.

Just received, light-weight grey soft felt hats, narrow black Silk band, will roll up to put in pocket.

Rs. 12/8.

Medium weight Khaki woollen Hose.

Sizes 10, 10½, 11, 11½ usually Rs 3/12.

SPECIAL PRICE :

Rs. 2/8.

6 pairs for 12/8.

Khaki pig sticker topees, quilted cover, in medium and extra thick p i t h, leather headband, chinstrap etc.—

Rs. 7/8 each.

Tennis Shirts of strong, hard-wearing Twill, any style.

Rs. 4/8 each or 6 for Rs. 29/-

Khaki Drill Tennis Shirts made from strong durable material.

Rs. 4/8.

Regulation Style with two breast pockets, shoulder straps etc.

Rs. 5/12.

White India Gauze cotton underwear

MORLEYS English make in Vests with ½ sleeves button front, Frox with ¼ sleeves and no buttons, trunk Drawers.

Rs. 3/14 each or 6 garments for Rs. 22/8.

Heavy white ribbed Tennis Socks.

Rs. 3/8 pair.

MORLEYS English made Khaki woollen Hose in Light and medium shades.

Rs. 7/8 pair.

Viyella white ribbed Tennis Socks, medium weight.

Rs. 3/3 pair.

SPENCER & Co. Ltd., MADRAS.

MAPS PUBLISHED BY THE SURVEY OF INDIA OFFICE

SCALES :—1" and $\frac{1}{2}$ " to the Mile

SOLD IN SHEETS COVERING : 289 and 578
Miles Respectively

EACH SHEET : Rs. 1-8 and Rs. 3 Respectively

MOTOR ROAD MAPS : SCALE 1"=16 Miles

PER SHEET : Rs. 1-8.

Index Map sent free (Returnable)

Sold By :

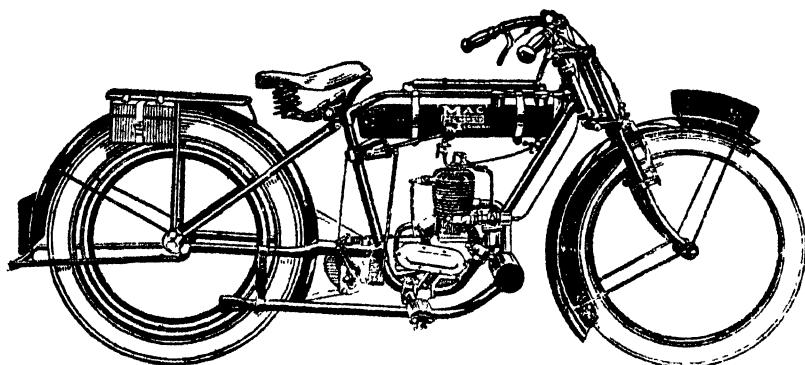
HIGGINBOTHAMS LIMITED.,
THE PLANTER'S BOOK-SELLERS AND STATIONERS,
Box 311, Mount Road, M A D R A S.
Branch at South Parade, B A N G A L O R E.

NOTICE !!!

THE NILGIRI NURSING HOME has now been placed under the direction of a strong Local Committee, representative of the Subscribers in whose sole interest it is run.

The Lady Superintendent at the Home, or the Hony. Secretary Nilgiri Nursing Home Sub-Committee Ootacamund, will supply all information required.

MACKENZIE MOTOR - CYCLE LIGHT WEIGHT MACHINES.



Gent's Roadster - Rs. 650

Sole Agents:

OAKES & Co. Ltd., MADRAS.

WANTED TO PURCHASE.

SOUTH INDIAN TEAS.

Nett cash against Railway Receipt.

A. E. STILLE & Co.,

Amrut Buildings,
Ballard Estate, BOMBAY.

G. R. PRAGJI LAXMIDAS & Co.,

For:

**"SHELL" Petrol
KEROSENE:-**

Superior R. S Brand.

Inferior "OWL"

"LION" Lubricating Oils.

LIQUID FUEL

MOTOR OILS

MINERAL GREASE

RICE.

Cocoanut Oil &c.

^{Tek}
"APOIL."

POLLACHI & UDAMALPET.

Fish Guano & Fish Manure.

Where the above can be had cheap, whose stuff would be reliable and stand analysis. Try the firm below and there your difficulties will find their solution.

H. C. FERNANDEZ & Co.,
Mangalore.

Tel: "Fernando".

"Wanted for 600 acre Tea Estate in Peermade, Travancore, Temporary Superintendent for the period from early April to end December 1925. For particulars: apply Post Box 201 c/o this paper

A. R. Abdulali & Co.,

Iron & Hardware Merchants,
12, Sembudass St., Madras.
Hold stock of M. S. Angles, Tees, Galved. Corr: sheets, pipes and other estate requisites.
For particulars: please apply.

18 H. P. Oakland "Light Six"
Touring Car fitted electric equipment. Magneto Ignition, in excellent condition Rs. 2000/- Any trial or examination.

Oakes & Co. Ltd. MADRAS

THE PLANTERS' CHRONICLE.

RECOGNISED AS THE OFFICIAL ORGAN OF THE U. P. A. S. I.
INCORPORATED.

Scale of Charges for Advertisements.

	Single Insertions per month	2 Insertions per month	3 Insertions per month	Weekly per month
Full Page ...	Rs. 17/8	Rs. 30/8	Rs. 43/12	Rs. 52/8
Half Page ...	" 10/8	" 18/4	" 26/4	" 31/8
Quarter Page.	" 7/-	" 12/4	" 17/8	" 21/-

Advertisements on Cover by Special Contract.

Special Discounts are allowed on 6 monthly and yearly contracts.

Short Advertisements of less than a Quarter Page.

	Single Insertions per month	2 Insertions per month	3 Insertions per month.	Weekly
For 1 month.	Rs. 2/8	Rs. 4/4	Rs. 6/4	Rs. 7/8
For 6 months.	" 12/8	" 21/12	" 31/4	" 37/8
For 1 year ...	" 22/8	" 39/4	" 56/4	" 67/8

The Planters' Chronicle.

Recognised as the Official Organ of the U. P. H. S. I., Incorporated.

Secretary's Registered Telegraphic Address "UPASI," MADRAS.

Telegraphic Address.— "CHRONICLE," Coimbatore.

VOL. XX No. 4]

JANUARY, 24TH 1925.

[PRICE As 8.

CONTENTS.

	PAGE.		PAGE.
The Colombo Tea Market ...	57	Planters' Week ...	70
Indian Coffee Statistics 23-24	58	Letters to the Editor...	71
Nilgiri Wynaad Planters' Association ...	60	Statistics Shipment of South Indian Produce during November 1924 ...	72
District Notes ...	62		
The Anamalai Estates ...	64		

PRICE OF "A" COFFEE.

BY CABLE—LONDON, 23rd January, 1925.

175s./—per cwt. Market Steady.

THE COLOMBO TEA MARKET.

The recent panicking on the Colombo Tea Market will have caused a flutter in the dovescotes of South India and we can quite imagine the subject of Tea prices this week ousting any other at club meets and places where they "Spit tea." What precisely happened remains a little obscure although for some little time now Colombo valuations have been so much higher than London that it is not surprising if home buyers have called off their Colombo representatives. The Tea market is a very delicate thing after all, and it does not take more than a faint rumour even, to upset it. All this talk which has been going on regarding the activities of "buying-over" brokers therefore, has given the market a considerable jolt and the possibilities of ructions between the proposed Royal Commission on Food Prices on the one hand and Distributors on the other, not to mention the gentleman who usually gets the ball out of the scrum, have combined to make history in the Tea world.

In the meanwhile the Colombo market is reported to be "fairly settled". That does not mean apparently that it has gone back to where it was before the panic but that it has settled down to a more reasonable figure in comparison with London prices. In the absence of any direct news as to the latter, except that there is a tendency towards stability at recent prices, it is difficult to foresee even a few days ahead but if the recent experiences in Ceylon tend towards a levelling up then no harm has been done. On the contrary it is all to the good for everybody concerned that London and Colombo should not show such discrepancies as have recently been witnessed. Big differences can only lead to sudden deadlock and as it is uncertain when the break will occur, the tone must necessarily be nervy and consequently unhealthy.

INDIAN COFFEE STATISTICS.

1923-24.

We have recently received the above publication which is an expansion of that formerly styled "Coffee in India" and will similarly be published annually by the Director-General of Commercial Intelligence.

It consists of an introduction reviewing the Coffee Industry during the year ending 30th June last, with details of area under cultivation, abandoned or extended during the year the labour force employed and crop harvested with a statement of Foreign coffee imported and coffee exported.

Issued with commendable promptitude, handy in form and very complete in detail it should be a most useful summary of facts regarding the Coffee Industry, if reliable.

In December 1923 ("Planters' Chronicle" of 8th December 1923 pages 756-758) we reviewed "Coffee in India 1922-23" quoting at some length figures supplied, but a glance at the statement given this year of the details of Area and Production of Coffee, discloses such glaring absurdities to anyone with any knowledge of Coffee Planting, that one is forced to the conclusion that much if not most of it is pure invention of persons totally ignorant of the industry of which they were cooking figures.

One of course realizes that Mr. Freke the present Director General of Commercial Intelligence can only string together the

figures he receives from the different Districts but it does seem a pity that his name and authority should be attached to such a hotch potch of nonsense issued as a guide to business men.

The first thing that strikes one in regard to this statement is that in many cases the area under cultivation brought forward does not agree with the figures of the previous year. If the new figures are more correct, as we believe they are, so much the better for reliable information.

The area under coffee in the Agency District has remained the same for the last three years, i. e. 278 acres but we are told that of this, 100 acres have not been picked during the last three years. With coffee quoted in the last issue of the "Chronicle" at 175 s. per cwt, the idea that the proprietor of this area is waiting better prices does not recommend itself to our intelligence, and we think if this area had been shown three years ago as abandoned it would more nearly approximate to the truth. Although it is without any explanation we are glad to note that the area stated to exist in the Madura District suddenly drops in the present report from 6,467 acres as shown in last years figures to 3,768 acres in the present report; a similar reduction next year and the area shown will begin to approximate to what we believe are facts. Last year we commented on the absurdity of the statement that the area in Madura although some of it could not be two years old gave an average crop of 4½ cwts. an acre. This year the fantastic figure of over ten hundredweights an acre over the whole 3,768 acres is stated to have been the crop. Although 332 acres were according to the figures supplied planted in the year under review and 813 acres the year previously, the whole with exception of 277 acres is stated to have been picked. Such statements are simply silly.

The area given under coffee on the Nilgiris is stated to be 7,791 acres although we know it really to exceed 12,000 and a similar statement to that of Madura occurs that of 774 acres under 2 years old all was picked with exception of 301. So with the Salem District; of 1090 acres stated to have been planted during the last two years all was included in acreage in bearing except 585 acres.

The same slip occurs in the last report as in the previous years, that whereas from these special returns plantations of less than 10 acres in extent are excluded, the Shimoga District is shown as having 50 plantations totalling to 151 acres under cultivation and as this area only averaged a crop of 7 lbs per acre it might well be left out entirely in future.

The yield per acre of area in bearing is stated as being in Madras 302 lbs, but this is only arrived at by inclusion of the ridiculous figures attached to the Madura District, which we have little doubt is

well over ten times the amount actually harvested. With grave misgivings as to whether any of the figures are reliable, even approximately, the following are the average yields stated to have been obtained in 1923-24

Agency Districts	44 lbs.	Salem	139 lbs	Hassan	111 lbs
Madura	1123 „	South Canara	93 „	Shimoga	7 „
Tinevelly	37 „	Malabar	100 „	Kadur	209 „
Coimbatore	229 „	Coorg	168 „	Travancore	157 „
Nilgiris	161 „	Mysore	124 „	Cochin	99 „

Another point we are not quite able to follow is that in Coimbatore District, it is reported that the yield in lbs. of cured coffee (637867 lbs) excludes an item of 18 tons of coffee of which the description could not be ascertained. Since at no other point in the report does the question of description arise it seems absurd to us that these 18 tons should have been left out of the total of "Cured coffee."

We can sympathize with Mr. Freke. We know from personal experience the difficulties attendant upon the collection of coffee statistics, but this does not excuse him for the omission from the report of any warning that the figures are so much at variance with the previously reported areas and crops. In the absence of this, the report, far from being a valuable contribution to the trade returns of India, is surely a mere waste of time.

NILGIRI-WYNAAD PLANTERS' ASSOCIATION.

Proceedings of a General Meeting held at Gudalur on Wednesday January 7th, at 11 A. M.

Present. Messrs. P. A. Naylor (Chairman) P. W. Davis, R. Fowke, J. S. Nicolls, J. C. Blackham, G. W. Fulcher, R. M. Nicolls, Major Brock (Director U. P. A. S. I. Labour Department), J. Aird, A. Foote, E. F. Morshead, J. W. G. Bisset, W. Seton Scott, E. R. Walker, W. K. Baillie, E. L. Keochlin, D. Mackintosh (Hon. Secretary).

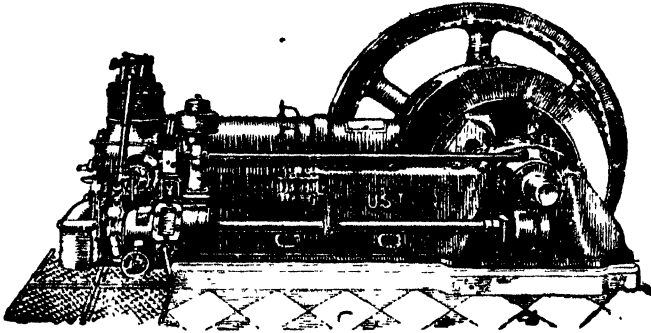
Visitor. Mr. W. G. Black.

Proceedings of the last Meeting. Were taken as read.

ON THE COAST and where timber is scarce.

Install—

THE RUSTON COLD STARTING CRUDE OIL ENGINE.



NO BLOW LAMP REQUIRED—THIS ENGINE
STARTS FROM COLD.

The Ruston Cold Starting Crude Oil Engine run on the cheapest fuel oils obtainable—either crude, residual or tar oils, and is—

THE MOST ECONOMICAL TYPE OF ENGINE ON THE MARKET.

FOR PRICES and particulars regarding fuel consumption

Apply to :—

Harrisons & Crosfield, Ltd.,
ENGINEERS,
QUILON

Telegrams "CROSFIELD" Quilon

H.C. No. 4

ESTATE TOOLS

—AND—

Factory Requisites.

Mamotties, Mamotty Forks, Digging Forks, Quintanies, Grubbing Mattocks, Pickaxes, Vettukathies, Alavangoes, Pruning Knives, Pruning Saws, Hoop Iron, Wire Nails, Block Tin, Solder, Stencil Ink, Jute Hessian,

TEA LEAD.

Best incorrodible from our Colombo Mills. Cut to suit Buyer's requirements.

Tapping Knives, Acetic Acid, Enamelled Buckets, Sodium Bisulphite, Carbolineum Heveaum, Izal, Coal Tar, Tallow

Country made Tea and Rubber Chests,
Venesta Tea Chests,
etc. etc.

**All Goods Guaranteed and any found
Defective Replaced free of Charge.**

Enquiries solicited

HARRISONS & GROSFIELD, LTD.

QUILON.

SUB BRANCHES AT CALICUT, COCHIN, ALLEPPEY, KOTTAYAM
AND TRIVANDRUM

TELEGRAMS : "CROSFIELD"

Anamally Labour Scheme. Major Brock, (Director U. P. A. S. I. Labour Department) addressed the Meeting and answered several questions pertaining to the New Scheme. The matter was well discussed and it was resolved and carried unanimously that this Association support the Anamally Labour Scheme as amended by the Select Committee at Bangalore. The following Members were elected Delegates to the Control Committee.

Coimbatore Division. Mr. R. Fowke.

Member in Waiting Mr. J. S. Nicolls.

Mysore Division. Mr. J. Aird.

Member in Waiting Mr. J. W. G. Bisset.

Delegates were given a free hand as to the lines on which they should vote.

Major Brock was heartily thanked for coming to the Meeting and for answering the numerous questions put to him.

U. P. A. S. I. Delegates report at Annual General Meeting. (Messrs. J. S. Nicolls and J. Aird) was read and a hearty vote of thanks passed.

Relapsing Fever. The Honorary Secretary was instructed to write to the D. M. and S. O., Ootacamund, pointing out that we know Relapsing Fever has been bad at Naduvattam and hope the necessary steps are being taken to cure it, and prevent its spreading further in the District also to find out the price of Serum, and if it can be obtained at Ootacamund, and if not, where.

Monsoon Damages. Read letter from Sir Fairless Barber.

The Meeting passed a hearty vote of thanks to Col : Ward, for the work he had done in repairing roads, bridges, and re-opening the roads for traffic again.

Nilgiri District Board. Mr. J. S. Nicolls through pressure of work, resigned his seat on the Board in favour of Mr. G. W. Fulcher.

District Local Labour Rates. This matter was discussed.

Resettlement Generally and Wynaads in particular. The following Resolution was passed:—

"That this Association after careful consideration is of opinion that in view of this Cess being one that is likely to be imposed on any District, the U. P. A. S. I. should take Legal opinion meeting the cost of same from General Funds".

The Honorary Secretary was instructed to write in and point out the many objections to any enhanced assessment.

R. FOWKE,
Chairman.

D. MACKINTOSH,
Honorary Secretary.

DISTRICT NOTES.

High Range.

To be; or not to be: That is the question. Unfortunately for everybody concerned it has to be; and it is therefore with many supplications to readers, that I blunder on.

In consideration for their welfare, however, as well as for my own future existence, as a member of this planting community, it has seemed advisable to speak the truth and shame notoriety.

The weather during the greater part of December, was all that could be desired for social enterprises, but the cold nights greatly hampered anything in the shape of a "Steady flush" and with these conditions still prevailing, we cannot expect to 'get in' much leaf for the present. The district, taken as a whole, is falling behind last year in crop to-date, but once climatic conditions improve, there is no reason why this shortage should not be made up. Judging by the yield figures to hand a certain friend of ours, in spite of the cold nights, can still get a 'flush' in the moonlight, thermometer at 34°. We congratulate him anew, and wish him every success in the coming year.

The labour force of the district is up to strength and, with very few exceptions the Estates have sufficient labour for their present requirements. Influenza has developed on two or three totes, and numbers of coolies have been laid up, but the disease is not widespread.

Since the 'Recent Heavy Rains and Floods' transport has obviously been our greatest difficulty but, thanks to the work done in construction and reconstruction of roads, the congestion of tea in the district has been dealt with, and the situation is now of a more pleasant aspect. Materials necessary for the maintenance of life as well as machinery and other necessities, can now be obtained and delivered with comparative ease. Although the roads now open to traffic are anything but perfect, we feel sure that it is only a matter of time before they return to a more normal condition. It now seems possible and (according to experts) quite probable that a more perfect understanding can be affected in the near future between car owners and the Powers that be. This we are glad to note, as every effort is being made to ensure speedy transport, cars and their occupants against accident and in some cases against total wreck.

Owing to the fact that at the moment our golf course and tennis courts are in a state of reconstruction, the social life of the district has been confined, chiefly, to week-end parties at Bungalows and club gatherings have been few. With the opening of one tennis court and the renovation of the swing bridge, connecting the club, things are beginning to brighten up, and we were lucky enough to have a number of people in, to bring in the New Year.

Early in the month the annual childrens' party and Xmas tree took place. Father Xmas was present, making the most of his ancient and somewhat dilapidated robes which nevertheless served their purpose, without accident or disclosure of his person. Although we hear rumours to the effect that the Santa Claus myth, as some like to call it, is becoming a thing of the past we feel certain that here, at any rate, its popularity with the younger generation, is as great as ever.

This report has already gone beyond the limit, and in consequence, it should now cease, save that it were well to mention for the edification of those who consider our social life to lack the essence and flavour associated with a planting district, that our chief source of information (our semi official organ, it is true, but nevertheless our principal organ) has been taken from us, and it is only during the last few weeks that we have re-established it. The weekly Tea Spit is ours once more, and our reputations are lost to us for ever, we can no longer range ourselves in the ranks of the discreet, but must in future be led forth for sacrifice as the rest of our Planting Friends.

THE ANAMALAI ESTATES.**Plight of the Coolies.**

Mr. C. V. Venkataramana Iyengar, M. L. C., writes in the "Hindu,"

At the time of the heavy rains last year many coolies ran away from some estates in the Anamalai Hills and several of them died on the way. An European D. P. W. officer saw some of them actually dving and on his report the Collector arranged for the patients being treated properly in the hospital at Pollachi and Coimbatore. When I heard of this, I visited both the hospitals and saw several patients and heard their stories. Many of them were from Malabar and a few were from the Districts of Salem and Trichinopoly. They all stated that owing to drought and scarcity in their parts, they believed the words of the maistries otherwise called Kanganies, and went to the Anamalai estates expecting large incomes but were disillusioned there and they had to run away as many of them were not able to withstand the heavy downpour of rains and cruel ill-treatments by the maistries. Many of them became sick and as they were afraid of being arrested under the Breach of Contract Act, they had to conceal themselves in forests and had to travel at nights. And as they had to travel under exposure to rains, and while suffering from starvation, they died on the way in large numbers. Some of these poor people gave me very funny stories as to how they were decoyed by the maistries and almost all the persons I saw were suffering from one or more of acute forms of malaria, hookworm and dysentery.

Managers' Attitude.

I thought that a visit to the estates themselves would give me a clear idea of the state of coolies there and I wrote to Mr. Congreve, M.L.C. and Mr. Lloyd, the Secretary of the Anamalai Planters' Association, about my intention and they readily welcomed the idea. After a few days I started, for the estates. I met Mr. Lloyd at Pollachi. Mr. Rajah, the then District Health Officer of Coimbatore, was also with me then and we all three went to the estates. I must express my great thankfulness to Mr. Lloyd for having kindly motor-ed with me for a very long distance. Mr. Congreve was unavoidably absent but his clerk helped me much in visiting some estates and getting further information. I prepared a long memorandum setting forth in detail my views on the various points connected with the

estates and sent it to Mr. Lloyd. I have received a reply which is very courteous but which promises no change in the near future. My own idea is that if the planters of the Anamalai estates take a little more interest in the coolies and spend a little more money to ensure their health and income a very large number of coolies that go outside India and outside this Presidency may very well go to these estates and it will materially add to the prosperity of the estates and of the coolies also.

There are about 20 estates in the Hills and they hold about 40,000 acres on long leases from the Government but only half their holdings are under actual cultivation and the remainder is being gradually converted into cultivation though rather slowly. The estates are generally managed by European gentlemen who are not owners and these gentlemen are mostly interested in the welfare of the coolies and are kind to them. The estate coolies themselves number about 20,000 but there are several others doing work under contractors in cleaning lands, putting up roads etc. Though the managers are kind towards their coolies, they are naturally prevented from being very liberal as they are anxious to show good returns to their masters that own the estates. I have however every hope that if some moral pressure is brought to bear on the owners as well as managers, they will not hesitate to do a little more for the health and convenience of the coolies and it is in the hope of bringing about some strong public opinion on the various questions that I have ventured to say a few words as to how their conditions can be improved at a little cost.

Health and Sanitation.

I must first acknowledge that the hospital arrangements on the estates are very good but there is no use of trying to cure diseases if serious attempts are not made to prevent them. In spite of the great care taken in the hospitals, the death rate among patients is very great and I was told that over 50 patients died in a single hospital in one month last year.

The first great reform should be regarding the quarters. At present they are generally low and ill-ventilated and the coolies crowd into these rooms at nights and on account of severe cold, even the few windows are closed. The first thing to do therefore is to provide more accommodation for these coolies. There should be better arrangements for ventilation and I would suggest some openings in the roofs and the coolies should be provided with more fuel than at present. No doubt fuel is available on a large scale in the

estates but the difficulty is to carry it to the quarters and it is very desirable that some arrangements should be made to carry fuel and store it in some place near the cooly lines so that the coolies may have more fire at night time and thus permit more air into their rooms. One other point I would urge is that the coolies should be supplied with two kumblis or blankets. As it is, they are given only one with the result that they use it while working when it gets wet and they use the same wet blanket at night also. I have heard loud complaints about the want of blankets from several coolies. Also, as it is well-known that malaria is caused by mosquitoes and as the disease is much prevalent on the Hills, I would suggest some trial to be made with painting the wooden portions of the buildings with what is called 'Creosote oil' which I understand has been found to be very successful in driving out mosquitoes in several countries.

Next to the question of quarters is that of the latrines. At present all the latrines are based on the pit system. I saw some of these pits and used one for my own purposes. No one that has to use these for some days especially in the rainy seasons will be surprised if the coolies try to avoid them in spite of all possible pressure. The soil is porous, the locality is sloping and the pits are narrow so that when the rains fall the pits become full, the smell becomes bad and the dirty water gets easily into the neighbouring springs or rivers wherefrom the coolies generally take their water. There is also a sentimental objection to the coolies using these latrines on a large scale and it is due to the fact that men and women have to use practically parts of the same latrine. The only possible way of improving the health of the cooly population and preventing hookworm disease is to have surface latrines with one or two full time scavengers for each estate and the use of incinerators for burning the filth and any delay in this matter is sure to make the health of the coolies much worse as time goes on.

Scarcity of Good Drinking Water.

The only other point I will deal with in this connection is the question of drinking water. There is no protected water available anywhere and the coolies get their supply either from shallow springs or from streams. They are near their quarters and latrines and are used both for washing and drinking purposes. They are naturally full of malaria and hookworm germs and there is no wonder that the coolies suffer from these diseases almost without an exception. I would therefore strongly suggest that wells supplied with parapet walls and pulleys should be made available for cooly lines and the coolies should be encouraged to drink hot water as much as possible by greater facilities being made for supply of fuel.

The Coolies' Economic Condition.

Let me now deal with the economic side of the cooly labour on the Anamalais. I would first place on record the extreme satisfaction that all temperance reformers should feel at the way in which the planters have dealt with the question and it may be said in one word that they have completely proved the possibility of total prohibition. Almost all the coolies are Adi-Dravidas given to the habit of drinking on the plains, but when they go to the Hills they can get no drink whatever and in spite of occasional attempts made to introduce shops, there is no toddy or arrack shop anywhere on the Hills. The whole Indian population of about 40,000 people goes without a drink practically throughout the year. The only exception is made once a year on the occasion of the Pongal festival when the planters supply some arrack free to some of the estate coolies. I have strongly pleaded for stopping this also and I hope that it will be done soon. As a result of this prohibition the labour is done satisfactorily and very few crimes are committed so much so that very little police supervision is needed. What is more, the usual story of illicit traffic in liquor is never heard there though the estates can be easily approached from all sides and we have Cochin and Travancore limits also very near the estates. Then there is the question of wages. Every man is paid seven annas a day and every woman five annas whenever the work is done except on piece work. In the case of plucking leaves some rate has been fixed for women and curiously enough a higher rate is given to men for the same quantity. There is no doubt however that the daily wages paid to men on the Hills under very difficult circumstances are lower than the wages on the plains which may be generally taken to be from eight to ten annas a day. There is no doubt that the coolies deserve some addition to the present daily wages and the estates also can very well afford to pay especially as the net profit from these estates is about 100 rupees an acre which certainly is not less than the income from the costly paddy fields. I may also add that the correctness of this calculation of mine has not been questioned by the Planters' Association. If only some increase is made in the daily wages especially of men, there will be a large increase in the number of coolies going to the Hills and that will lead to the economic advantage of the estates as well as the Districts near Coimbatore.

I should refer to one fact before I close this part of my letter, The planters give a fixed quantity of rice to every man and to every woman, every week, at rates a little lower than what they themselves pay. It cannot be said that there is much real benefit to the cooly for most of the profits are taken away by middlemen, who have been given the monopoly of supplying rice to the estates, with the result that the rice is not of a very good quality and the coolies are not

helped in any substantial way. There is also the fact that while the rice is supplied by the estates, the coolies have to purchase the other articles necessary for their food from strangers keeping a shop in each estate and naturally the shopowners being practically monopolists charge high prices and the coolies have no go but to purchase at these high prices with the result that the small gain, if any, made by the coolies in that is taken away by these merchants. My suggestion is that either the estates should purchase all food articles including rice at wholesale prices in the places of production and sell the same at cost price or arrangements should be made to hold weekly shandies in two or three places where the people from the plains may sell the necessary goods and where, with a view to prevent coolies from having ready cash in their hands and misusing the same, chits of different values issued by the estates to the coolies might be received by the vendors towards the price of articles and then cashed in the estates.

The Maistries.

I shall close this letter after making a few remarks about the maistries who are generally speaking the cause of all terror and of all mischief. They are men of vast experience in the estates and have studied the managers very well knowing their merits and weaknesses and the fate of every cooly depends on the maistry under whom he is working as under the rules at present every cooly is to work under some maistry. From the statements made to me in the hospitals and the information gained during my stay on the Hills, I have no doubt that much trouble and worry will be saved and much cause for disaffection will be removed if some changes are made in the administration and procedure adopted in the mode of recruitment of coolies and the way in which the work is taken subsequently.

Thus I would suggest the present system of settling accounts once in ten months and asking the coolies to go to the plains for two months should be changed and coolies should be encouraged to stay on continuously by some small annual increments and by accounts being settled once a year after making weekly payments for foodstuffs etc., and making money order remittances to relations whenever necessary. Also if a cooly wants to go away at any time for good reasons he should be permitted to do so by settling accounts and paying the balance into his hands directly. As it is, no one is paid before ten months and if a man is to go away in the middle, his accounts are not settled but he is told that the balance would be paid to the maistry after ten months. This has led in some cases to t.s maistries inducing the coolies by wrong means such as threats etc to change estates within ten months and some coolies in the hospitals

told me that in a period of about 15 months they had to go to three estates and then to run away having received not a pie of cash all that time. I must of course say that many of the Adi-Dravida maistries are fairly satisfactory and are able to pull on very well with the coolies under their charge who are generally their castemen and are also in most cases their own relations but the system is itself capable of being misused and such cases occur very often giving rooms for much complaint and real hardships in numerous cases.

An Enquiry Committee Needed.

These are a few facts and suggestions which I have been able to give in a brief article. The Association considered my memorandum and had no objection to my statements of facts but the planters seem to think that they are doing their best and cannot incur any additional expenditure and add that though the price of tea is now high the same may not continue long. Anyhow there is no doubt whatever that in the interests of everyone concerned some real attempts should be made to improve the sanitary and financial conditions of the coolies and the best way of doing it will be for the Government to appoint a Committee to go into the whole question of the state of labour in plantations in Southern India. I do not know if the Government will do this especially because they are themselves arranging to open a big cinchona plantation in the Anamalais, I am much opposed to this scheme as it will prove a big white elephant being after some years unsatisfactory to all concerned the Government and planters, the public and the coolies. I have myself given notice of a resolution in the Legislative Council for the appointment of such a Committee but I do not know when the resolution can be moved and with what result.

PLANTERS' WEEK.

21ST TO 29TH MARCH 1925.

Ootacamund Gymkhana Club.

The following letter from the Honorary Secretary & Treasurer of the Ootacamund Gymkhana Club is published for information:—

Ootacamund Gymkhana Club.

20th January 1925.

N. C. Whitton Esq.,
President, U. P. A. S. I. Sports Club,
Ootacamund.

Dear Sir,

Planters' Week 1925.

In acknowledging with thanks your letter dated 12th ultimo I have to state that same was duly submitted to my Committee at their latest meeting and it was then resolved to meet you in every way possible on the lines of your letter under reference --so far as my Club is concerned—during the 1925 Planters Week.

I am advertising an Open Tennis Tournament during the week, which will incorporate in one both our customary annual tournament and that held, as in 1924, during the Planters Week, the prospectus of which should be available very shortly, whilst we shall also be only too pleased to throw open both our Links and Tennis Courts to the Inter-District events annually held during this meet.

In conclusion I shall personally be only too glad to co-operate with your goodself in every way to make the 1925 Planters Week a success.

Yours faithfully,

(Sd.) C. LATHAM.

Honorary Secretary & Treasurer.

The thanks of the Planting Community have been tendered to the President & Committee of the Ootacamund Gymkhana Club for their promised support of Planters Week. Visiting Planters should arrange to be introduced by a member. The prospectus of the Open Tennis Tournament will be published later.

21st January 1925.

N. C. WHITTON.
President,
U. P. A. S. I. Sports Club.

The "Carver" Rugby Challenge Cup.

It is with great pleasure I am able to announce that Mr. G. A. Marsh, the pioneer Planter of the Anamallais and well-known sportsman, has been pleased to present the U. P. A. S. I. Sports Club with a challenge Rugger Cup to the value of Rs. 500.

The Cup will be competed for during the coming Planters' Week by the Anamallais and a team from "The Rest" of the Planters,—should no other Planting District send a team.

Mr. Marsh has left the conditions under which this cup is to be annually competed for to the U. P. A. S. I. Sports Club Committee, but has stipulated that the Cup is solely for Planters and no other teams.

I feel sure that that this generous gift from Mr. Marsh will go far to stimulate Rugger in our community.

Ootacamund,
24th January, 1925. }

N. C. WHITTON,
President.
U. P. A. S. I. Sports Club.

LETTERS TO THE EDITOR.

*(The Planters' Chronicle is not responsible for the opinions
of its correspondents.)*

Dear Sir,

I feel I must reply to your Nilgiri-Wynaad Correspondent's felicitations in your issue of 17th January regarding a certain gentleman who visited the Ouchterloney Valley recently. I am afraid the "cap fits" and am glad to be able to advise your Correspondent that the gentleman in question certainly came away with better impressions, but whereas the pain in his feet on his last visit was somewhat "sham", the "pagne" this time was certainly "cham".

With apologies,
Yours faithfully,
SUFFERER.

U.P.A.S.I STATISTICS. SHIPMENT OF SOUTH INDIAN PRODUCE during NOVEMBER, 1924.

From.	To others					
	ports in India.	Ceylon.	United Kingdom.	Europe.	Asia.	Africa. America. • Australia.
TEA.						
Madras	2185	6940	262970	600	500	...
Calicut	51895	22916	1087654	...	6	...
Cochin	122325	52456	807380	...	...	6300
Tellicherry	...	...	68998	...	...	...
Tuticorin.	...	293339	952927	...	...	...
Alleppey	...	12913	101780	...	...	...
Totals.	176405	388564	3281709	600	506	6300
Previously	416935	1960229	18452675	60151	5195	108595
Total lbs. since	593340	2348793	21734384	60751	5701	114895
1-4-24. 248,62,784.						
COFFEE.						
Madras	278	...	13	...	4	...
Mangalore	150	...	...	1322	...	...
Tellicherry	...	...	...	3	...	...
Bombay	...	...	...	...	4	...
Totals	428	...	13	1325	8	...
Previously	9662	25	42070	131805	18976	701
Total cwts. since	10090	25	42083	133130	18984	103
1-1-24. 213741						8625
RUBBER.						
Calicut	...	81724	97364	...	...	...
Cochin	...	141022	338801	...	...	11200
Mangalore	...	1931	...	...	...	...
Tellicherry	...	...	27630	...	...	...
Tuticorin	...	134892	14640	...	...	...
Alleppey	...	115087	14000	18607	...	...
Totals	...	474656	492435	18607	...	11200
Previously	14807	3458303	3263917	58052	839	652859
Total lbs. since	14807	3932959	3756352	76659	839	4756
1-1-24. 8450672.						241

The Planters' Chronicle.

Recognised as the Official Organ of the U. P. A. S. I., Incorporated

Secretary's Registered Telegraphic Address "UPASI," MADRAS.

Mr. EDWIN VINCENT.—Managing Editor, Coimbatore,

Telegraphic Address.— "CHRONICLE," Coimbatore.

VOL. XX No. 5]

JANUARY, 31ST 1925.

[PRICE As 8

CONTENTS.

	PAGE.		PAGE.
Monthly Market Notes by		U. P. A. S. I. Sports Club	... 82
"Eothen" ...	73	District Notes	... 83
Coorg Planters' Association...	77	Letters' to the Editor	... 83
Relapsing Fever ...	79		

PRICE OF "A" COFFEE.

BY CABLE—LONDON, 30th January, 1925.

180s./—per cwt. Market Steady.

MONTHLY MARKET NOTES by "EOTHEN".

LONDON, 15th January 1925.

Tea. When the tea auctions closed for the Christmas holidays there seemed to be no reason whatever to anticipate a fall in prices in the New Year. During November, and December however, the British press, which had for some time past been distinctly fretful regarding the price which was being paid for tea by the consumers, spurred on by the laudable ambition of being able to give some advice to the Royal Food Com-

mission, undoubtedly in the hope that the sympathies of housewife readers would be aroused, suddenly discovered to an annoyed world that the price of tea was being kept up mainly owing to the machinations of one or two broking firms. It must be admitted that the outcry was fairly general; even the *London Times* rather hinted that there was no smoke without fire. With no intention of supporting the campaign it is undoubtedly a fact that the operations of one or two large firms have on several occasions caused the price to be, say, a penny per pound higher than was strictly necessary. In these notes written under date December 11th of last year, it was pointed out that the remarkable prices realised in November were partly due to the activities of a very large buyer who had resold to a very considerable extent. It is this habit of "buying over" that has aroused the ire of the press. Those responsible for the press campaign, however, wilfully ignore the fact that the operations of these brokers is merely a symptom of the strength of the market, and not a cause of it. It is only when a very strong market exists that brokers are able to take these risks. Nevertheless, the attention of the Royal Food Commission was drawn to tea prices and the Board of Trade communicated to the Commission a memorandum on the subject. When public sales were resumed last week prices were on the whole from $\frac{3}{4}$ d to a 1d down on the week as compared with those ruling just before Christmas. The decline was so small that it could hardly be attributed to the press campaign. At the beginning of the last week Mr. J. J. Bunting was interviewed in Colombo on the subject of the tea market, and a report of this interview, which contained some rather striking remarks against the distributing interests, was cabled to this country. The interview created considerable interest inasmuch as it is understood that Mr. Bunting's firm are very large buyers in Mincing Lane. This week's auctions were comparatively depressed, and at the Ceylon sale on Tuesday falls of 2d to 3d per lb. occurred in leaf teas. There was an irregular decline of from 1d. to 4d. at the close and a considerable quantity of tea was taken out. The chief reason for the setback is that there are comparatively large stocks of tea in hand owing to the increased shipments which have come to this country recently from Northern India. Arrivals of tea, in fact, are said to be nearly three months ahead of time. This factor gives rise to the impression that the present setback is a temporary one and that in May or June of this year prices will again reach high levels.

The stock in bond in the United Kingdom on 31st December 1924 was 204,333,000 lbs. against 165,666,000 lbs. 1923. On the year imports show an increase of 55,800,000 lbs., but deliveries are but 20,750,000 more; hence an advance of nearly 40,000,000 lbs. in stocks.

The following are the average prices secured at the first auctions held this year:—

		Week Ended Jan. 9, 1925.	Last Sale Dec. 19, 1924.	Current Week 1924.
Northern India	...	1/10.10d.	1/10.42d.	1/5.74d.
Southern India	...	1/9.50d.	1/10.86d.	1/6.26d.
Ceylon	...	1/11.06d.	1/11.84d.	1/7.62d.
Java	...	1/6.02d.	1/6.68d.	1/3.03d.

Prices at this week's auctions showed an appreciable decline on the above.

Rubber. The Rubber Market began the year well, the commodity touching 1/8*d.* for spot and holding to that price for two or three days. It was obvious that this 1/8*d.* price was somewhat artificial, however, owing to the disparity between the spot price and that for forward positions. At one time spot was 1/8*d.* and July—September was 1/7*d.* sellers Of the 29,000 tons of rubber which represented the London stock, it was estimated that one particular London dealer possessed about 1/8. It was this dealer who was keeping up the spot price at 1/8*d.* He held the London Market in the hollow of his hand. During the past few days he has abstained from buying and this, coupled with the monthly Mincing Lane settlement and the disturbing influence of the failure of a New York firm of rubber dealers has brought the price down once more below 1/7*d.* The New York firm which failed is reported to have been "short" of a fairly large quantity of rubber sold to American manufacturers. In addition to actual short sales uncovered, the firm had also bought from London dealers and resold to manufacturers in America large quantities for January to March shipment, and on the suspension becoming known here, these contracts were "closed out". Temporarily, therefore, this failure has depressed the London market, though in the long run it will mean that American manufacturers will find themselves short of some thousands of tons which will have to be bought elsewhere.

Turning to the question of the London stocks, the following are the figures showing how they stood on December 31st for the past four years:—

1921	1922	1923	1924.
69,781 tons	72,203 tons	59,958 tons	29,482 tons,

This week's Port of London figures are as follows: —

Landed 1,484 tons; delivered 1,050 tons; stock 29,639 tons, against 57,268 tons a year ago and 72,976 tons in 1923.

It is still expected that the average price of rubber in London for the restriction quarter ending January 31st will be 1/6d. or over, thereby allowing a release of another 10 per cent. of standard production. The average price for the month of December was 1/6.745d. For the 49 working days, November 1st to December 31st, the average worked out at 1/6.061d. The setback experienced by the market during the past few days has, however, begun to cause some uneasiness, and it is still within the bounds of possibility that the quarter's average will be so close to the 1/6d. mark as to give everybody a fright. Whether supporters in principle of the restriction scheme or not there are few producing companies which are content to be allowed to produce merely half their crop, and the extra 10 per cent. is eagerly awaited. The market has undoubtedly been affected by the liquidation of speculative accounts, but the essential factor which has governed the position for some time past, namely, the excess of recent demands over current supplies, has so far as can be gathered remained practically unimpaired. The market is as sensitive as ever. This week bear influences have been at work and dealers have abstained from buying. Next week we may see a resumption of American interest, which has not been particularly prominent during the past few days.

Coffee. Public sales of coffee were resumed on January 6th when over 4,000 packages were offered included in which were 1500 packages of new Costa Rica. There was a fair demand at steady to firmer rates. Desirable coffee has on the whole sold steadily and indeed occasionally at rather better prices than before the holidays, but nondescript sorts, of which the supply was fairly plentiful, tended towards a lower range of values.

During the first six months of this crop season, according to Messrs. Duuring & Zoon, an increase in the world's visible supply of 313,000 bags is recorded, the total now being 5,384,000 bags. The following figures show the sources of supply during that period contrasted with deliveries in Europe and the States:—

Receipts at Rio	2,428,000 bags	Deliveries in Europe	4,950,000
„ Santos	5,584,000	„ „ U. S. A.	5,436,000
Arrivals (Other Kinds)	2,822,000	„ „	
	<u>10,834,000</u>	„ „	<u>10,386,000</u>

Supplies during the coming six months are reported as likely to show a falling off as compared with those for January—June last year. The present Rio crop is estimated at 2½ millions, which would leave only 322,000 bags to come. Santos receipts if regulated to 30,000

bags daily would contribute between $4\frac{1}{2}$ and 5 million bags and not much more than the latter figure if the whole estimated crop were received. On the other hand the six months before us are the heaviest ones for "milds" but not likely to give as much as 4,621,000 which arrived during January—June last year in as much as Central America generally speaks of poor crops. January—June deliveries in Europe and the States amounted last year to 10,304,000 bags, and if of the same dimensions this year the world's visible supply should gradually decrease from now to the end of the season. Bearing in mind how small that figure already is, and that no carry forward of this season's Santos harvest into next is likely, the statistical position must be regarded as a very sound one, state Messrs. James Cook & Co., in their monthly report.

It is a sign of the times that the Dumont Coffee Company is paying on January 31st a dividend of $18\frac{3}{4}$ per cent. on their $7\frac{1}{2}$ per cent. Cumulative Preference shares, being in respect of the $2\frac{1}{2}$ years ended December 31st last, thus clearing off all arrears.

At Tuesday's auction 4,345 packages were offered and met a fairly good demand. Kenva, bold greenish and colouring sold up to 163/6, and Costa Rica, good to fine bold colouring fetched up to 199/6d. Futures are well up compared with December. March quoted 122 sellers. News from America is to the effect that the advance in prices has failed to check consumption.

COORG PLANTERS' ASSOCIATION.

Minutes of an Extra-ordinary General Meeting of the above Association held, on Thursday January 15th, 1925, at the Frazerpett Travellers' Bungalow, 10. a. m.

Present. Messrs P. G. Tipping, (Chairman), G. R. Pearse, A. H. Jackson F. W. Gerrard, W. A. F. Bracken, N. M. Scholfield, Lt. Col. W. B. Bucknall, O. B. E., R. B. Cunningham, H. Jackson, W. G. L. Parsons, A. S. L. Grove, J. O. F. Maurice, L. Newcome, E. Krohn, W. E. Dickinson, A. E. J. Nicolls, W. R. Wright, D. C. Mahon, J. S. H. Morgan, E. M. Gray and A. F. Magniac, (Hon. Secretary.)

Notice calling the Meeting was read :—

The British Empire Exhibition. There was a lengthy discussion on this matter, and it was finally decided that until the U. P. A. S. I.

Executive Committee had received replies from Messrs Lyons & Co., Ltd, as to what they were prepared to do, and more details as to the cost of running a stall, no steps could be taken.

U. P. A. S. I. Sports Club. The feeling of the Meeting was that the Sports Club should be supported, as special efforts had been made to meet Coffee Planters, as pointed out in Mr. Whitton's letter to the Hon. Secretary, which had been circulated to all Members for information. Circular Forms were distributed, and the Hon. Secretary asked Members to send in their subscriptions direct to the Secretary of the U. P. A. S. I. The Hon. Secretary of the Coorg Gymkhana said he would do what he could towards arranging for Members to take part in the Ooty Week.

The Mysore Coffee Experimental Station Cess. This matter was discussed, and it was pointed out that the present cess of 2 as per acre was passed in 1923, and as far as this cess went was compulsory.

Mr. Newcome proposed, and Mr. Magniac seconded, that The Coorg Legislative Council be approached through the Associations representatives, with regard to a compulsory cess being levied in Coorg, on the same lines as in Mysore, to support the Mysore Experimental Station. Carried.

Repeal of Act. XIII of 1859. The Honorary Secretary was instructed to enquire from the Secretary of the U. P. A. S. I., what steps had been taken with regard to the recommendations submitted by the Sub-Committee appointed at the U. P. A. S. I. General Meeting in 1923, to the Madras Government and to impress on him the urgency of the matter. Col. Bucknall suggested that a Sub-Committee should be appointed to draft a letter to the Commissioner of Coorg on the subject. This was done, and the draft letter drawn up.

Coorg Mails. The Honorary Secretary read copy of letter to the Commissioner of Coorg, from the Superintendent of Post Offices, Mysore, on subject of delay in delivery of Mails in Coorg and forwarded by the Commissioner for an expression of opinion. The Honorary Secretary was instructed as to reply.

Coffee and Pepper Stealing Fund. A few matters in connection with this Fund were discussed, and a letter from the Tellicherry Chamber of Commerce was read to the Meeting, with reference to the offer of the Tellicherry Curing Firms co-operating with the Association in the matter of offering rewards for detection of Coffee and Pepper thefts whilst the produce was in transport. A vote of thanks was accorded the subscribing firms for their interest and co-operation.

Annamalai Scoeme. The budget as shown by the Control Committee Members, who had met the Director of the Labour Department the previous week, was discussed. Mr. J. S. H. Morgan was elected as Member in waiting for S. Canara, and the Hon. Secretary was instructed to ask Mr. J. B. Reed if he would act in a similar capacity for Mysore.

Crop Sales. The comment of the Mysore Planters' Association that no support had been received from Coorg with regard their resolutions on the Mangalore Curers Circular, was brought to the notice of the Meeting.

The Honorary Secretary was instructed to write and explain the matter.

With a vote of thanks to the chair, and the Hon. Secretary, the Meeting terminated.

P G. TIPPING,
Chairman.

A. F. MAGNIAC,
Hon. Secretary.

RELAPSING FEVER.

Dr. F. Milton Writes :—

Relapsing Fever has broken out in the Wynaad and, as I have heard, in Anamallais and exaggerated reports of the severity of the outbreak in the Wynaad at least have already reached the authorities.

I have put up a plea to the Nilgiri-Wynaad P. A. for an early inter-Estate notification of all cases occurring in the District and I would venture to urge the same throughout all Planting Districts.

Relapsing Fever is not a difficult disease to deal with provided you know where you are. It is spread by direct contact between the infected and the healthy and this contact would appear to need to be intimate and to endure for a considerable period of time.

The recognised vector of the disease is the louse though I am beginning to think there may be another means of conveying the particular form of the disease which is found in S. India, but that is another story which we may come to some future day. The louse does not willingly leave its own host and pass to another for it has no inducement to do so and it is merely by accident that it may fall or be thrown off from one person and have to do what it can to find

accommodation elsewhere and whilst it is carrying on its search for new harbourage it is in danger of death from many sources. It is therefore probable that the interchange of parasites even amongst relatives is not large.

In this connection two facts may be cited. The records of the Relapsing Fever outbreak in Ooty (most courteously placed at my disposal by the Chairman of the Municipality) show that in over 95 per cent. of all the cases occurring, and these ran into a good many hundreds, direct contact with a pre-existing case could be shown and in the outbreak which recently occurred on one of our estates in the North Wynaad the disease although it ran through the Tamils living in three of the rooms of a six roomed line, taking the better part of a month to do so, yet never spread to the Moplahs living in the other three rooms of the same line although the two gangs were on perfectly friendly terms with each other.

The point I want to bring out is that the disease is not an elusive one breaking out here and there over a large area and requiring prolonged and deep search to trace the mode of infection but it is one which, under ordinary conditions, passes but slowly from man to man by contact which has to be comparatively prolonged.

This being so all that is needed to arrest its progress is (1) a full knowledge of the whereabouts of existing centres of infection (2) a knowledge of the friendships and intimacies of the particular gang of coolies infected and (3) the prevention of intimate contact between the infected persons and their intimates and other healthy persons with whom they are likely to be inclined to mix.

That is to say that if every infected gang is recognised it is not a complicated matter to confine infection to the body first infected, all that is required being to guard those with whom they are inclined to mix from their advances.

I say nothing here about delousing and other means which may be taken to prevent the spread of the disease on conventional lines for delousing, so simple to talk about and to plan is almost impossible to make really effective.

If I am right in what I have stated above it follows that in the Planting Districts where the whole of the population open to infection are immigrants (I anticipate the jungle tribes will prove largely immune) living under conditions comparatively easy to control if the disease be recognised in a gang (it will always begin in a particular gang and will even if uncontrolled take a considerable time to spread outside that gang) and the affinities of that gang be known it becomes a mere matter of Estate discipline to prevent the spread of the dis-

ease to the rest of the labour, but since gangs on one Estate may have friends and relatives on some other either neighbouring or even distant Estates who they are prone to visit, the only way to check the disease effectively is by a system of faithfully carried out inter-Estate and inter-District notification of all cases as soon as they occur.

There would appear to be a certain reluctance on the part of many people to make known the existence of infectious disease on their properties, a feeling that they have been let down and probably a feeling that they are a danger and a menace to their neighbours and that if the fact of the precedence of infection can be hidden it should be hidden. As a matter of fact, in this country at any rate, the occurrence of infectious disease in the first instance on any Estate is the act of God and all that is left for man is to take what steps he can to get the disease in hand himself and to let his neighbours know in order that he may take steps to guard himself in time.

The system I would advocate would be for all Planters, whether members of a P. A. or not to agree to notify the Hon: Secretary of the local P. A. of the occurrence of every case of Relapsing Fever (I would prefer it to be of every case of any infectious disease) on his Estate or coming to his knowledge amongst the villagers in his neighbourhood. At the beginning of an outbreak every case should be notified as it occurs but should the disease become established a weekly report would suffice.

The information should state :—

The name of the District.

Name of the Estate.

Number of cases under report.

Race of the Coolies infected.

District of origin of the Coolies infected.

Number since last report Cured & Died.

The District of origin is important to know as it gives the key to the infected gang's affinities but should superintendents for any reason object to give it, it may be omitted.

I am permitted to state that the E. & S. C. W. S. is all for publicity and will willingly join in any scheme that may be acceptable to Planters generally.

U. P. A. S. I. SPORTS CLUB.

PLANTERS' WEEK 1925.

at Ootacamund.

Crickets. In order to ensure that the strongest possible XI will take the field against the M.C.C. will Honorary Secretaries of all Planters' Associations kindly send into me names of cricketers in their area with qualifications who will be available for selection in the TRIAL MATCH North v. South to be held on 27th Márch 1925.

Line. Same as last year—Calicut—Coimbatore —Erode and thence S. I. Railway. West Coast P. A. being South.

Applications to play the Planters have been received from Wellington Gymkhana and the Indians of the Nilgiris, but it is found impossible to fit in these engagements during the week.

Last year we gave a day to the Indians after the official termination of the week, and I suggest that a whole day fixture be offered to each of these Clubs on 30th and 31st Márch.

I must however have some indication as to how many cricketers are prepared to stop up the extra two days before making the engagements.

Will Honorary Secretaries please make a note against the names of those able to do so.

Golf. 1st round 21st Márch at 2-30 p. m.

Entries should be sent to me as soon as possible please by Honorary Secretaries.

Woodbriar Estate,
Devarshola P. O. }
26th January, 1925.

G. W. FULCHER,
Honorary Secretary,
U. P. A. S. I. Sports Club.

Committee member for :—Cricket and Golf.

DISTRICT NOTES.

Mysore.

Threat of rain at the beginning of January happily did not materialise and at the moment there is every indication that dry weather will continue. We hope so as rain now would be disastrous for owing to the heavy showers at the end of November and beginning of December the ground has not yet dried and so budding up is rather backward.

Most people have, I think, got through the heaviest part of crop and many have finished. From what I can gather crops with very few exceptions are short.

Major Brock, Director of the Labour Department, was in the district for a few days in order to meet the Executive of the Mysore Association and discuss with them the re-organisation of the Labour Department. The meeting was well attended and some useful business done.

There is no social news as most people stick on their estates at this busy time of the year. If there is any I am afraid my correspondents (?) in North Mysore and the Bababudins have forgotten to let me know.

LETTERS TO THE EDITOR.

*(The Planters' Chronicle is not responsible for the opinions
of its correspondents).*

Dear Sir,

Indian Coffee Statistics 1923-24.

With reference to the penultimate paragraph of your article on the above in last Saturday's issue of the "*Chronicle*" I can I think explain the mystery of the 18 tons of coffee not included in the figures for the Coimbatore District, and at the same time throw some light on the attitude adopted by officials in regards to statistics of production.

For some years my office has supplied the crop figures for the Coimbatore District to the Collector. In certain cases, in the past, returns as to crop were received from estates as so many bushels Parchment, Cherry, Tails, etc., and about eight years ago I supplied the Director of Statistics with the average outturn of these different descriptions, to enable him to reduce them to Tons or pounds as the case might be. Of recent years planters have sent me in addition to details of Parchment, Cherry dried and Tails, actual outturn as taken from the Curers' statements, and in 1923 I was able to make the complete return in definite Cwts. Qrs. and lbs. The Collector's Office at once returned statement with a letter saying,— 'I shall be obliged if you will supply me with the particulars for Cherry dried, Parchment and Tails in terms of bushels " I went personally to see the Collector and explain the undoubted reliability of the figures supplied, and as the Director General of Commercial Intelligence required his figures in pounds, the absurdity of converting the figures into terms of bushels, to be again transformed by a clerk into lbs. but was requested to do as I was told. I accordingly had a new form made out as requested. In 1924 all crop was returned in terms of bushels with exception of one estate which had given its crop as 18 tons. I was of course at once asked to convert it into bushels, but I replied that as I did not know whether the crop was dried in cherry or gathered and pulped in the ordinary way, I was unable to comply. It is evidently beyond the capabilities of that office to reduce tons to pounds and the difficulty was got over as you point out by excluding the 18 tons altogether.

I will take up the matter of this publication with the Director General of Commercial Intelligence, who I know from previous correspondence is just as keen as the planters concerned that statistics issued by him should be accurate.

Yours faithfully,

H. WADDINGTON,

Secretary U.P.A.S.I.

The Planters' Chronicle.

Recognised as the Official Organ of the U. P. H. S. I., Incorporated

Secretary's Registered Telegraphic Address "UPASI," MADRAS.

Mr. EDWIN VINCENT.—Managing Editor, Coimbatore,

Telegraphic Address—"CHRONICLE," Coimbatore.

VOL. XX NO. 6.]

FEBRUARY, 7TH 1925.

[PRICE AS 8.

CONTENTS.

	PAGE.		PAGE.
Tea Estate Labour	... 85	Cover Crops	... 94
Tea in the Empire	... 86		
Indian Labour	... 88	Planters' Week	... 99
Some Observations on Root Diseases of Hevea Brasiliensis	... 90	U. P. A. S. I. Sports Club	...101

PRICE OF "A" COFFEE.

BY CABLE—LONDON, 6th February, 1925.

180a./—per cwt. Market Steady.

TEA ESTATE LABOUR.

In view of the publicity we have given recently to the question of labour on Tea Estates, and their average earnings, the following note in the Indian Scientific Agriculturist is of interest, and will we trust be carefully perused by those who are accustomed in our Councils to "let unreasoning sentiment have free rein or are disposed to preach economic sermons based on the nominal wage as a text to serve their own ends". Our contemporary says:—A Government resolution on the conditions of labour in the tea gardens in Assam

draws pointed attention to the ridiculously low figure of the nominal wage, as compared with the actual cash earnings of labourers, even leaving out of account valuable concessions in the form of free housing, cheap rice and land for private cultivation. There is, in fact, no relation between what the labourers earn and the nominal wage, with the result that those who let unreasoning sentiment have free rein or are disposed to preach economic sermons based on the nominal wage as the text to serve their own ends succeed in conveying the impression that Indian labour is exploited shamelessly in the tea gardens. The recruitment of labour for the industry is, also, badly handicapped, because it is the nominal wage which is the basis of comparison with wages in other industries. The labourers in the tea gardens have really nothing to complain of, as compared with labourers in other industries on the score of earnings. Their cash earnings, not to mention such money saving concessions as free housing, diet and other allowances, show a definite increase as compared with previous years. If care is taken to make the actual earnings of these labourers known in places where labour is recruited for the tea gardens, and, at the same time, the qualifications of the men selected as recruiting "sardars" are weighed judiciously before entrusting them with the work, there is every reason to believe that the difficulties now experienced in obtaining labour for the industry will disappear, and in time the tea gardens will have the class of men required for the work. It is men who recognise their limitations as unskilled labourers and who are prepared to put up with the climatic draw-backs of life in the tea gardens in order to improve their economic position in a manner impossible to them in other industries that the tea industry wants, and the only way to get them is to make no secret about the actual earnings of the labourers already at work in the tea gardens in Assam.

TEA IN THE EMPIRE.

The growth of the tea industry within the Empire during the past century is an example of agricultural and commercial development, so rapid and on the whole so sound that it probably equals in importance any similar development on record. The Empire exhibits at Wembley during 1924 drew attention to many aspects of colonial industry and prominent among them is the great tea industry.

Up to quite recent times tea was produced commercially almost entirely in China and Japan and at the present time in spite of greatly reduced exports, China is probably the premier tea producing country of the world. Statistics are difficult to prepare in a country like China, and particularly for a product which, like tea, enters into the daily use of its enormous population.

China, where tea has been cultivated for a thousand years or more, was originally the only producer and consumer of the products of this plant, states *Tropical Agriculture*. In the 13th century, it is said to have been introduced into Japan. About 100 years ago the Dutch established a commercial cultivation of tea in Java. At about the same time the East India Company began to experiment with tea cultivation in Assam and, in 1836, a pound sample was sent to London. In 1840, tea cultivation was started on a commercial basis in India and a few years later in Ceylon. At the present time, India and Ceylon are the principal producers of tea for export in the world, China, Japan, Formosa and the Dutch East Indies, Natal, Nyasaland and other British Colonies following.

India exported 294,700,000 lb. of tea during 1922, and of this 259,100,000 lb. went to England. Ceylon exported in that year 171,400,000 lb. of which 103,900,000 lb. was imported into England. As will be seen from these figures the United Kingdom is the greatest importer of the teas of India and Ceylon; China, Japan and Formosa teas provide the greater part of the teas consumed in the United States of America.

The tea plant although grown largely in the tropics is apparently a sub-tropical plant. A native of Assam it has spread far from tropical borders in Japan and China and in Natal, and in South Carolina, it has proved its ability to withstand the comparative extremes of the American temperate climate. On the whole, however, the great developments of the tea industry have been well within the tropics, and it would appear that many tropical localities not yet exploited are suitable for tea cultivation.

The black and green tea come from the same bush, the difference between them being the results of different processes of manufacture.

The rate of consumption of tea varies greatly, the English-speaking people using more tea than those of other races. In the United Kingdom the per capita consumption is put at about 9 lb. per annum. Australians and New Zealanders are also great tea drinkers, and they use about as much as the English people. In Canada the consumption is only about 5 lb. per head per annum.

In one day it is stated that two tons of tea were used in serving refreshment in the restaurants of the British Empire Exhibition at Wembley.

America is not a great tea-consuming country but intensive advertising may result in increased consumption and by advertising also the British grown teas may be made to replace China and Japan varieties.

The Ceylon tea industry was built on the collapse of the coffee in the Colony. During the '70's coffee was so severely ravaged by the Hemelia or bright leaf disease that the planters were faced with ruin. But the success of tea in India induced Ceylon planters to substitute it for their failing coffee with the result that a cultivation of over 500,000 acres has been developed, with a production, which in certain years has gone over 200,000,000 lb.

In Natal, the failure of coffee was followed by a tea development and more recently the tea in this part of South Africa has been to some extent replaced by sugar-cane.

In Nyasaland tea cultivation has passed the experimental stage and in 1922 the imports from this Colony into England amounted to 666,560 lb. of tea having a value of £33,080.

In Kenya and Uganda trials are now being made, which give promise of developing into satisfactory commercial propositions.

The conditions in Malaya would seem favourable for tea cultivation also.

In Assam it is estimated that to bring an estate of 400 acres into bearing, to build the necessary factory and other necessary permanent buildings, to purchase and erect the machinery and to import labour would cost from £80 to £100 per acre. In Ceylon, the cost of the machinery alone on an estate of 200 acres all in full bearing is estimated at £1,000 exclusive of power engines and buildings. Virgin soil is advised for planting tea but many tea gardens have been established on old coffee or flax lands.

The cultivation of tea would appear to be attractive to planters who need to find a new crop in localities where the climate and labour conditions are right for such a development. In the older tea districts where labourers are liable to become disaffected and seek higher pay, the expansion of the industry is likely to be at a much slower rate and in this, and in the prospect of greatly increased consumption in the future lies the safeguard of the planters who are minded to try it.

INDIAN LABOUR.

Half-a dozen points of very considerable interest says the *Malayan Tin and Rubber Journal* were brought forward at the half-yearly meeting of the Planters' Association of Malaya, which meeting took place in Kuala Lumpur. At the opening of the meeting Rao

Sahib Arulanandam Pillai, Agent to the Government of India, was fully encouraged by the planters gathered there to explain his views as to the further uplift of Indian labourers in the F. M. S., the Rao Sahib's point on this occasion being the encouragement of thrift amongst estate labourers. We in Malaya are only too eager to do our best towards the uplift of the Indian labourer in Malaya. Indeed, so much has already been done for the Indian labourer in Malaya that a well-known Indian gentleman who has just returned from a holiday in India, has gone out of his way to assure us that "the F. M. S. is a paradise for Indian labourers compared with their life in South India." He points out that in South India labourers are paid a miserable pittance in comparison to what they get here, whilst the average labourer's accommodation in an Indian village is appalling in comparison to the excellent accommodation given to Indian labourers on the rubber estates of the F. M. S. In spite of these facts, we however assure the Rao Sahib, and those in India who are interesting themselves in Indian Labour conditions in the F. M. S., that both the Government of the F. M. S. and the planters of the Federation are only too eager further to improve the already excellent living conditions which Indian labourers enjoy in the F. M. S. The Rao Sahib himself must be quite satisfied by now that the F. M. S. is a very pleasant place for Indian labourers, for we know him to be an honest man—a man honest to himself, honest to us in this country and honest to the Government of India who sent him here as an unbiased guardian of the interests of Indian labourers in the F. M. S.

That Indian estate labourers here should be encouraged in thrift is all to our interests. These easily handled, industrious workers from South India form an ideal labour force for our rubber estates and will always be welcome here. In fact we want a steady stream of them and the best way to keep this stream flowing is through the coolies themselves. Every coolie who returns to India a happy contented man with a bundle of rupees saved during his stay in Malaya is a first class advertisement for this country. As a matter of fact, the F. M. S. as a field for work for the superfluous population of South India already has a name we are proud of. The Indian gentleman we have above quoted has emphasised this. He tells us that the young men of the South Indian villages are all full of ambition to come to Malaya and that many approached him as to ways and means of getting here. Then, too, he found that one and all of those who had returned to Indian villages from Malaya had nothing but good to say about Malaya whilst some of the older men, although they have gone back with considerable savings, expressed a longing to return to Malaya.

All this is most gratifying to us in Malaya and from it one very interesting thought arises. This is that we in the F. M. S. should make every effort to form a permanent colony of Indians of the

labouring class in Malaya. Those older coolies, who have lost touch with life in India, and who long for the easier and happier conditions which obtain in Malaya, would form the perfect nucleus of such a colony. We know that the F. M. S. Government, and particularly the present Chief Secretary who shows such foresight in connection with all matters making for the welfare of the F. M. S., favours such a scheme and we sincerely trust that good developments in this direction will be forthcoming before very long.

Before we close, just one word about the Kanganv system. The Indian gentleman we have referred to touched on this point. He says that the great fault of the Kanganies is that they are given to gross exaggeration when they go to India—in fact they tell the coolies downright lies. His suggestion is that these men should be cautioned to describe conditions here exactly as they are and not tell potential emigrants that “they will get big wages and not have any manual work to do at all”. This is rather an interesting point and we trust that all estate managers will impress upon their recruiters in India the need to explain to the coolies exactly the type of work they will be expected to perform on the rubber estates of Malaya.

SOME OBSERVATIONS ON ROOT DISEASES OF HEVEA BRASILIENSIS.

A. SHARPLES.

Two recent articles by Dr. C. van Overeem and Dr. C. van Overeem and Dr. A. Steinmann have to be recorded and considered in relation to our knowledge in Malaya. Regarding the article on “The Red-Root fungus of *Hevea Brasiliensis*,” (2) the writer has been in communication with Dr. van Overeem and specimens have been exchanged. In this article Drs. van Overeem and Steinmann suggest that the fungus causing the well-known “Wet Rot” of Rubber roots in Malaya and named provisionally “*Fomes Psuedo-ferreus*” by Wakefield (1) from specimens developed in pure cultures by Belgrave, is the same as the fungus commonly found in West Java and named *Ganoderma ferreum* (Berkley) van Overeem and Steinmann; and that “Wet Rot of Roots of *Hevea Brasiliensis*” in Malaya is the same as “Red Root of *Hevea Brasiliensis*” in Java.

In the interchange of specimens, old fruit-bodies from Belgrave's pure cultures were sent to Dr. van Overeem, who regarded the specimens as probably approximating to *Ganoderma ferreum*, although the typical spores were absent. The writer obtained from Dr. van Overeem typical fruit bodies of *Ganoderma ferreum* (Berkley) van

Overeem and Steinmann, which appears to be found quite commonly in Java. The fructification sent by Dr. van Overeem has been examined closely by various authorities in Malaya and all are agreed that this fungus has never been found associated with Wet-Root Rot in Malaya. Pinching, Senior Officer on the Scientific Staff of the Rubber Growers' Association in Malaya however, has accepted *Ganoderma ferreum* in one of his latest articles (5).

In connection with the statement of Drs. van Overeem and Steinmann (l. c.) "that this species should be called "*Ganoderma ferreum* (Berkley) van Overeem and Steinmann, and the name *Fomes psuedo-ferreus* (Wakefield) be considered synonymous" the writer considers that sufficient evidence has not been adduced to allow this statement to be accepted. Belgrave (1) in his investigation worked out the life-history of the fungus and its parasitic nature along the required lines, by obtaining pure cultures, successful inoculations and re-isolations. Drs. van Overeem and Steinmann have obtained much general field evidence regarding the identity of *Ganoderma ferreum* with a Wet Rot of Hevea roots in Java, but as regards actual proof, only to be obtained by pure culture work etc. they have offered no substantial evidence for regarding *Ganoderma ferreum* as synonymous with *Fomes psuedo-ferreus*.

To the layman, the question of naming may seem of small importance but there is a wider significance as a result of the writer's investigations on "Brown Root Disease" (6). Brown Root Disease is a factor of some importance in the cultivation of many tropical crops and the causal fungus was usually assumed to be *Hymenochaetae noxia* (Berk) (4 p. 48) because this fungus was so commonly found associated with the disease; later Petch has changed this finding for Brown Root disease of *Hevea brasiliensis*, which he now regards as caused by *Fomes lamaoensis*, (Murr) *Hymenochaetae noxia* being a stage in the life history of *Fomes lamaoensis* (4. p. 48). Again it should be remarked that as far as the literature has been studied, constant association of the fungus and diseased roots is the basis on which finding is made, and this evidence cannot be accepted as final. The writer studied comparatively:—

- (1) Brown Root disease of Rubber roots from Ceylon.
- (2) Brown Root disease of Rubber roots from Malaya.
- (3) Brown Root disease of Camphor.
- (4) Recently some work has been done on a Brown Root disease of *Aleurites montana*.

In these cases, four distinct fungi were isolated. The first three have all been inoculated into rubber seedlings and each one was capable of penetrating the tissues to a greater or less degree. Apart from the fungus obtained from Camphor roots suffering from Brown Root disease, all the fungi isolated, including that obtained from diseased roots of *Aleurites montana*, showed the same peculiarities when grown in pure culture on rubber wood blocks. These were the rapid growth of the fungi in the tissues of blocks, as shown by a copious exudation of drops of a clear gummy or resinous nature, and by the copious production of mucilage in contact with water. The fungus from camphor Brown Root was out of line because of a yellowish-brown mycelium, which grew rapidly over the blocks to completely cover them.

The observations made in Malaya furnish strong evidence for considering that more than one fungus is concerned in causing Brown Root disease on the varied tropical cultivations. The characteristic symptoms of Brown Root disease, i. e. binding together of masses of loose soil and small debris into a firm mass around diseased roots, without doubt would be brought about by any fungus possessing the power of attacking the wood and producing mucilage when in contact with sufficient supplies of moisture; in effect there are many different morphological species of fungi capable of causing Brown Root symptoms because they are similar in the physiological attributes.

A similar explanation appears more feasible to the writer regarding Red Root disease of Java, and "Wet Rot of Rubber in Malaya" i. e. probably two different fungi producing similar symptoms. Drs. van Overeem and Steinmann however, should have no difficulty in clinching the matter if pure cultures of *Ganoderma ferreum* are set up, when a comparison of the fruit-bodies, which appeared frequently in Belgrave's pure culture work, could be made and all further doubts set at rest.

The second article (3) by Dr. van Overeem is of interest in dealing with the fungus *Ustulina zonata* (Lev) Sacc which is responsible for many losses in rubber plantations.

Ustulina vulgaris Tul. and *Ustulina zonata* (Lev) Sacc have up to date always been considered two different species. *Ustulina vulgaris* is known to occur frequently all over the world and is a genuine cosmopolitan, whereas *Ustulina zonata* is only known to occur in Tropical Asia (India, Ceylon, Malay Archipelago). Dr. van Overeem, in an extensive resume, has provided strong evidence for considering the two species identical and suggests the name *Ustulina maxima* (Web) von Wettstein, to include *Ustulina vulgaris* and *Ustulina zonata* which were previously considered distinct species.

Apart from the scientific interest, there is a practical aspect in regard to Dr. van Overeem's paper. He mentions the extraordinary variability of the tropical form of *Ustulina maxima* (Web) von Wettstein (i.e. *U. zonata*), a feature which was stressed by the writer (7). Petch (4 p. 144) in Ceylon and the mycologists of the Rubber Growers Association in Malaya have called attention to the fungus *Kretzschmaria micropus*, which is given as a wound parasite on *Hevea brasiliensis*. The writer (7) and now Dr. van Overeem have both called particular attention to the "*Kretzschmaria*" stage of *Ustulina zonata*, for it is often found both in pure cultures and in close association with the ordinary plate-like form of the fungus in nature. No good can accrue to the rubber industry by unnecessarily multiplying the number of names of fungi supposed to be capable of causing diseases of *Hevea brasiliensis* and there seems no adequate reason in the present stage of our knowledge for considering the "*Kretzschmaria*" fungus associated with symptoms similar to those attributed to *Ustulina zonata* as other than an expression of the extreme variability in the growth forms of this fungus.

1. Belgrave, W. N. C. ... A Wet-Rot of Para Rubber Bull. No. 28, Dept. of Agr., F. M. S.
2. Overeem van, C. Dr. ... Over De Roode Worteschimmel
and van *Hevea Brasiliensis*, M. A.
Steinmann, A. Dr. ... Archief voor de Rubber Culture.
Oct. 1923.
3. Overeem van, C. Dr. ... Uber *Ustulina vulgaris* Tul. und
Ustulina zonata (Lev.) Sacc. Bull.
du. Jardin Botanique Buitenzorg—
Serie III, Vol. VI, Juillet 1924.
4. Pinching, H. C. ... A consideration of the present con-
dition of the earliest *Hevea* Plan-
tings in the East,
Report of Int. Rubber Conference.
Brussels, published by Rubber
Growers' Association.
5. Petch, T. ... Diseases and Pests of the Rubber
Tree. 1921. Macmillan & Co.
6. Sharples, A. ... A preliminary account of Obser-
vations on the Fungi causing
Brown Root Disease,
Malayan Agricultural Journal,
Vol. X, July 1922, No. 7.
7. Sharples, A. ... *Ustulina zonata* (Lev.) Sacc. Anns:
of App: Biology, No. 4, March,
1918.
(*Malayan Agricultural Journal*).

COVER CROPS.

BY T. D. MARSH.

The following lecture by Mr. T. D. Marsh appears in "The Planter" for December 1924,

The practice of growing cover crops has no doubt originated from the system of improving land by "green manuring."

Green manuring is practised throughout the world in all kinds of agriculture, and is one of the most economical means of improving soil fertility. The method usually adopted is to sow a quick growing, short lived leguminous crop; one which produces a large bulk of green material, and to plough it under when it is about in the flowering stage. The land is thereby enriched both mechanically and chemically.

The growing of green manures and the subsequent operations are hardly necessary for the successful growth of the principal crops cultivated in Malaya. I do not think they are economical, because of the heavy cost of chankolling necessary when sowing and turning the crop under, but probably are so on such impoverished areas as old tapioca, pineapple, or such worked out land; it is no doubt quite an economical proposition in more intense forms of agriculture or horticulture.

In the place of green manuring, a much more suitable method of retaining fertility, and improving it, has come into practice in the growth of cover crops—although the system of "covers" is not so "complete" as green manuring, it gives us other benefits.

In green manuring we get almost immediate benefit in enrichment of land, chemically and physically, but in the growth of the covers we may only get half the good results for two or three years, because the covers are growing vigorously. They are not dying or decaying, and until the whole or part of the plants do so, the chemical enrichment of the soil is delayed, and in the early stages of growth they are in competition with the main crop for food material. But they (the covers) are doing good in other ways, which I will now explain.

The benefits to soil by the growth of cover crops are as follows :—

(1) They conserve moisture during droughts by preventing evaporation from the surface of the soil, and in so doing they keep the land from becoming baked and hard.

(2) They improve the physical properties of all soils by the addition of humus, or organic matter. Humus makes clay soils more open, and of lighter texture, and prevents these soils from drying out into hard lumps, as may be illustrated by the case of cultivating and weeding newly opened-up areas, compared with land that has been cultivated for a few years, in which the organic matter has been practically all decomposed.

Sandy soils are made firmer and more retentive to moisture by the addition of humus.

(3) Cover crops prevent the loss of plant food by drainage by taking up the food in the drainage water for their own use, chiefly from the lower levels of the soil, and on their death and decay, these plant foods are liberated for the use of the main crop. This may be specially noticed on hill sides, where the usual methods are employed to retain surface soil from being lost by erosion, by silt pits, terraces, etc., but the water, filtering through these pits, terraces, etc., carries into the depths of the soil, proportionally, large quantities of plant food, and we find the main crop, probably rubber, making bad growth, poor bark renewal, and altogether not looking vigorous; principally due to the loss of this plant food, being carried deep into the earth and lost to the crop. The remedy is to grow covers, preferably deep rooted ones, for the above-mentioned reason.

(4) Covers prevent the loss of surface soil by erosion on hill sides and are recognised as one of the best means of doing this.

(5) They collect and fix nitrogen from the atmosphere. It is almost essential that covers from the natural order *Leguminosæ* should be grown, as they accomplish all the physical benefits obtainable from non legumes and in addition they improve the fertility of the soil chemically by the addition of nitrogen. Nitrogen is the most expensive manurial constituent that we have to buy in artificial manures.

Plants of the family of *leguminosæ* can be recognised by their characteristic, legume or seed pod, and are found in the form of creepers, shrubs and trees. They are distributed from the Equator to the fringe of vegetation in the Polar regions.

It was found by early scientists that this order of plants did not impoverish the soil, but on the contrary enriched it, and furthermore they had a higher content of nitrogen than other plants. Consequently the investigators set to find out the reasons. On the roots of these leguminous plants are found nodules. They are really small tumours caused by a colony of bacteria which set up an irritation causing the nodule—the bacteria parasitically living in these nodules have the power of taking nitrogen from the atmosphere for their own use;

incidentally, they pass some of it on for the use of their host; the bacteria and host really live together for mutual advantage. When the plant dies, this accumulated nitrogenous matter is left in the soil, and on decomposition it becomes available for the use of other plants

(6) They decrease the weeding costs, which may amount to a considerable expense in young clearings.

Common Arguments Against the Practice of Growing Covers

(a) Slower growth of main crop when under cover crops in comparison with clean weeding.

(b) Difficulties of detecting harmful weeds, such as lallang, and the expensive cost of eradication when found.

(c) Coolies' objections to tapping amongst covers for fear of snakes and centipedes and the formidable spines in *Mimosa invisa*.

(d) The faster spread of root disease, principally Fomes, under cover crops has been noticed both on rubber and coffee, especially on land with much decaying timber lying about.

(e) There is the danger of accumulation of too much organic matter in coconut areas, providing breeding places for the coconut beetle.

It is by far the best plan if covers are established on newly cleared land, and before the rubber is mature.

The plants should spread over the ground in the shortest space of time, that the weeding may not be costly during their establishment. With most covers it is necessary to weed for a few months.

The land should be clean and the seeds sown at the beginning of the rainy season.

Some covers, especially giant mimosa, will grow on weedy land, and this cover has the reputation of smothering out lallang and blukar.

Covers should provide heavy shade and not grow too tall or woody.

Java agriculturists are recommending the planting of two or more cover crops together. It has been found that each cover appears to do better than where grown alone, a thicker and more airy crop is obtained and if one cover dies, say from disease, the other quickly takes its place.

It is difficult to establish covers in old rubber, or on badly washed hill sides, and the latest method in Java is to scrape to a small ridge running between the rows of trees surface soil, consisting principally of leaf mould, and sow the seeds in the ridge, where the cover becomes established and gradually spreads over the rest of the ground.

Another method is to plant the seeds with a very small quantity of nitrogenous artificial manure or a handful of cattle manure just to give it a start.

The best advice I can give is to try in small plots the most likely covers to be successful and afterwards to establish the best in larger areas.

I understand that in Java and Sumatra it is more the exception than the rule to see estates without covers and they are strongly recommended by all the leading investigators of the D. E. I.

I would advise planters to keep an eye open for any vigorous growing creeping plant (legumes) growing on or around their estates and try them as covers; this is the way most of the covers have been obtained and one may find a cover to suit one's own conditions better in this way than by importing plants from other districts or countries.

It is often advisable to grow one of the less popular covers, such as the *Teprosias*, which are tall growing, but will do on poor land to get the soil in better condition and afterwards to grow another low growing and better cover.

I do not altogether condemn the non-legumes. Often they will do well where legumes are difficult to grow, or they will give a more luxurious growth than legumes, and although not giving the full benefits that can be derived from legumes, they are undoubtedly very good.

In conclusion, I would say grow cover crops on good land to retain the good qualities and on poor land to improve it, both chemically and physically, and grow legumes.

A Few Notes on Some of the Popular Covers

Centrosema plumieri. One of the most popular covers in the East. Must be established soon after burning jungle. Will not grow on poor soil, and almost impossible to grow on washed hill sides. Is difficult to establish under old rubber. It can be established on poor soils by sowing the seeds say a yard apart each way, in holes in which a handful of cattle manure has to be placed, but if this cover is not established in the early years of growth of rubber it is better to plant something else—it is liable to die out in patches from the effect of eelworms.

It will grow under old rubber if established early.

Centrosema pubescens:—At present, with another cover I will mention, is the most talked-of cover in Malaya, Java and Ceylon. It has been boomed in Java and spoken of very highly.

It is reported to resist heavy rains and long droughts—suits heavy but not water-logged soils. It resists shade when established and it is advisable to plant it where trees have been removed or with a handful of cattle manure to get it established. In young rubber it is considered in Java to be the next best cover after Limosa.

Requires clean ground for sowing and wants care for some months in weeding, etc.

It is recommended in Java to give it a chance to climb by placing branches or bamboos where the plant is growing. This facilitates weeding and encourages it to seed.

Vigna Oligosperma and Dolichos Hosei:—Believed to be one and the same plant. Greatly boomed in Java. I am afraid it is not so successful here. The former appears to be more vigorous strain of the plant than the latter. Will withstand heavy shade. Regarded as second to none as a cover crop in Java.

It provides a dense carpet-like cover over ground and absolutely prevents wash on hill sides on clay soils. No records available on sandy or light soils.

Grown very extensively in Java and Sumatra—becomes established in six to eight months—requires weeding until that time. Propagated from cuttings, although it seeds to a small extent if encouraged to climb. Plants may be planted about 2 ft. apart each way.

Calopogonium Mucunoides: Is a new cover from Java, being tried at Serdang Government Plantation. It is said to be very good.

Mimosa invisa:—Very vigorous legume—will take possession of ground; is useful for clearing bluke and has reputation of even choking lallang out. Is being used by Railway Department alongside lines. Excellent to prevent encroachment of bluker on boundaries.

Seeds freely—claimed as best cover on young plantations. Coolies object to spines. Requires keeping in check and can only be grown between trees in mature rubber so that tapping can be carried out. Dies down in dry weather and there is a danger of fire, which damages trees. In some quarters, where it has been used to eradicate lallang, it has lost favour, due to drying out and allowing the lallang to regain possession of the land.

Tephrosia candida, purpurea, noctiflora, vogelii. All leguminous shrubs. Have very high manurial content in leaves and branches. Not very popular here, but used extensively in some places. Very useful as shade for coffee plantations, periodically pruned—prunings cover the ground, providing a mulch.

Sown in rows 2 ft. apart, *Purpurea*, which is smallest, requires sowing closer.

There is a doubt as to some of them having poisonous properties to stock.

Suitable for young rubber.

They prevent wash less efficiently than the creeping covers.

Are used where it would be difficult to establish some of the creeping covers: that is on poor soils.

Crotalaria striata, *Juncea sun pemp*, *angyroides*, *usaramoesis*:—Similar to the *Tephrosias* in many respects. Are leguminous shrubs of high manurial value. Do not live so long as *Tephrosias*. Very quick growers.

Angyroides grows to 10 to 14 ft. in six months.

Cassia Mimosaides:—Similar to *Tephrosias* and *Crotalaras*. Not a success at Serdang—became infected with a beetle which killed it out.

There are many others, principally of the shrub variety. Popular non legumes are *Passiflora*, passion vine, sweet potato. *Mukania Scandens*—a new one.

PLANTERS' WEEK.

21ST TO 29TH MARCH 1925.

His Excellency The Governor & Viscountess Goschen

In response to an enquiry to His Excellency's Military Secretary whether there is any likelihood of Their Excellencies and their family being in residence in Ootacamund during Planters' Week, Col. Balfour has written to say that, as far as can be foreseen, there is very little prospect of either Their Excellencies or any of their family being at Ootacamund at so early a date. Their Excellencies have desired Col. Balfour to say that they will be sorry to miss this opportunity of making the acquaintance of a number of the Planters.

Their Excellencies nevertheless have been pleased to actively associate themselves with Planters' Week and have signified their very kind intention of presenting the First Prizes for the best Fancy Dress Costumes to be worn at the Fancy Dress Ball, which will be held at the Assembly Room, Ootacamund, on Thursday March 26th. Mr. C. R. T. Congreve, M. L. C., is very kindly presenting the Second Prizes on this occasion.

Ootacamund.

2nd February 1925.

N. C. WHITTON.

President,

U. P. A. S. I. Sports Club.

The following is published for information :—

OOTACAMUND GYMKHANA CLUB

Annual Tennis Tournament

TO BE HELD DURING PLANTERS' WEEK ON GOLF HOUSE COURTS.

COMMENCING ON SATURDAY, 21ST MARCH 1925

Matches will be played in the afternoon and in the morning also, if necessary.

Events I, II, III, IV and V are open to members of recognised European Clubs, the others are confined to members of the Ootacamund Club and Woodside, the Coonoor Club, the Ootacamund Gymkhana Club, the Wellington Gymkhana Club and members of the United Planters' Association of Southern India, any Association affiliated to the U. P. A. S. I., or bona-fide European Clubs in the Madras Presidency.

Events.

- | | |
|---|--|
| I. Gentlemen's Open Singles* | } Entrance Rs. 6 for each competitor
for each event. |
| II. Do do Doubles | |
| III. Ladies' Open Singles | } Entrance Rs. 4 for each competitor
for each event. |
| IV. Do do Doubles | |
| V. Mixed Doubles—Open†—Entrance Rs. 8 per pair. | |
| VI. Gentlemen's Singles Handi-
cap | } Open to members of the Ootacamund Club and Woodside, the Coonoor Club, the Ootacamund Gymkhana Club, the Wellington Gymkhana Club and members of the United Planters Association Southern India, any Association affiliated to it, or bonafide European Clubs in the Madras Presidency.
Entrance Rs. 3 for Ladies, Ps. 5 for gentlemen. |
| VII. Do Doubles do | |
| VIII. Ladies' Singles do† | |
| IX. Do Doubles do | |
| X. Mixed Doubles do | |

Unless there are 6 entries for singles and 4 (pairs) for Doubles, the event will not take place.

*Silver Challenge Cup presented by Their Excellencies Lord and Lady Willingdon, for Event No. 1. The cup to be held for one year but to become the property of anyone winning it 3 years in succession. The winner of this event will also receive a memento from the Club.

†Two Silver Challenge Cups, viz., one presented by H. H. the Maharani Holkar of Indore and one by the Jaghirdar of Arni, will be given for event No. V, the former to the lady winner, and the latter to the gentleman winner, to be held by them for one year. Each will also receive a memento from the Club.

Holders, 1923 Miss M. Moberly and Dr. C. P. V. Shunker.

‡Silver Challenge Cup presented by Mr. Framjee Pestonjee Bhungara for Event No. VIII. The cup to be held for one year but to become the property of anyone winning it 3 years in succession. The winner of this Event will also receive a memento from the Club.

Holder, 1923 ... Miss Conran Smith.

Events I to X fell through in 1924 owing to insufficient entries. Entries close on Monday, 16th March 1925 at 6 p. m.

Entries may be entered on the lists put up on the Golf House Notice Board or sent to the Honorary Secretary

Prizes in the shape of cups will be given.

C. LATHAM,
Hony. Secretary and Treasurer.

Planters intending to play in the above Tennis Tournament are requested to note (a) That entries close on Monday, the 16th March 1925 at 6 p. m. and (b) That the Tournament commences on Saturday the 21st March 1925.

Ootacamund.) N. C. WHITTON.
2nd February 1925.) *President,*
U. P. A. S. I. Sports Club.

U. P. A. S. I. SPORTS CLUB.

Membership List as at 31st January 1925

Anamalais:—Life Members:—

- 1 C. R. T. Congreve,
- 2 D. Cooper,
- 3 E. Hardy,
- 4 F. N. House,
- 5 J. A. P. Livod,
- 6 J. Hatton Robinson,
- 7 E. W. Simcock,

- 1 F. V. Hammond,
- 2 H. H. Stuart,
- 3 T. Davenport,
- 4 C. R. T. Congreve,
- 5 A. C. Cotton,
- 6 P. E. Achard,
- 7 C. L. Napier,
- 8 F. Simmons,
- 9 J. E. Sampson,

Central Travancore:—Life Members:—

- 1 J. S. Wilkie,

- 1 W. F. Inman,

Coorg:—

- 1 The Association,
- 2 J. V. Shank,
- 3 H. W. Bell,
- 4 L. Newcome,
- 5 A. F. Magnie,

Mundakayam:—Life Members:—

- 1 J. J. Murphy,
- 1 J. R. Vincent,
- 2 A. D. Vincent,
- 3 G. Macpherson,
- 4 G. A. Rutherford,
- 5 E. S. Conner,
- 6 W. Gillespie,

Mundakavam, (Continued)

- 7 R. N. W. Jodrell,
- 8 G. O. Smith,
- 9 J. S. P. Symons,

Mysore:—Life Members --

- 1 C. H. Godfrey,
- 2 E. L. Poyser,

- 1 C. Lake,
- 2 H. H. English,
- 3 E. M. Nixon,
- 4 A. H. Courpalay,

Nilgiri:—Life Members:—

- 1 Sir Fairless Barber,

- 1 B. A. Marden,
- 2 L. F. Lake,
- 3 A. S. Dandison,
- 4 R. L. Stuart,
- 5 E. G. Windle,

Nilgiri-Wynaad:—Life Members --

- 1 J. B. Adkins,
- 2 G. W. Fulcher,
- 3 J. S. Nicolls,
- 4 H. L. Outhell,

- 1 G. W. Fulcher,
- 2 L. W. Bellers,
- 3 R. Bently,
- 4 W. Seton Scott,
- 5 P. W. Davies,
- 6 R. M. Nicolls,
- 7 P. A. Naylor,
- 8 W. K. Raillie,
- 9 D. Mackintosh

South Travancore. --

- 1 E. T. C. Farr,
- 2 John P. Cook,
- 3 F. H. Powell,
- 4 L. J. Jackson,

West Coast:—Life Members:—

- 1 W. K. M. Langley,
- 2 H. J. Walmsley,

1 The Association,

- 2 R. Lescher,
- 3 C. Jackson,
- 4 J. T. Murray,
- 5 G. M. Brameld,
- 6 W. F. Campbell,
- 7 J. G. Mitchell,
- 8 A. W. Knight,
- 9 W. W. Prager,
- 10 Campbell Hunt,

Wynaad:—Life Members—

- 1 T. P. Gauld,
- 2 S. H. Powell,

- 1 B. M. Behr,
- 2 J. A. Gwynne,
- 3 B. D. Darkin,
- 4 E. E. Eyre,
- 5 R. S. Creed,
- 6 N. C. Whitton,
- 7 H. J. C. Hammond,
- 8 R. A. Leslie,
- 9 G. Bavzaand,

Kanan Devans:—Life Members—

- 1 H. L. Pinches,

- 1 The Association,
 - 2 J. C. Swaine,
 - 3 A. G. Macgregor,
 - 4 A. Yates,
 - 5 E. M. Pinks,
- U. P. A. S. I.—*
- 1 H. Waddington,
 - 2 Major C. H. Brock,
 - 3 F. W. Winterbotham,
 - 4 A. H. Mackie,
 - 5 A. Dunning,
 - 6 A. G. A. Dunning,
- Shevaroyis:—Nil.*

Honorary Secretaries and Sports Club Representatives of District Associations will note that in most cases the membership of the U. P. A. S. I. Sports Club, as shown above, is hardly in proportion to the strength of their Planting Districts, and are asked to very kindly assist by doing their utmost to increase the number of members of this club

Ootacamund, }
4th February 1925. }

N. C. WHITTON, *President*,
U. P. A. S. I. Sports Club.

The Planters' Chronicle.

Recognised as the Official Organ of the U. P. H. S. I., Incorporated

Secretary's Registered Telegraphic Address "UPASI," MADRAS.

Mr. EDWIN VINCENT.—Managing Editor, Coimbatore,

raphic Address—"CHRONICLE," Coimbatore.

VOL. XX No. 7.]

FEBRUARY, 14TH 1925.

[PRICE AS 8.

CONTENTS.

	PAGE.		PAGE.
Tea Sensations in London	103	Planters' Week	... 112
Nilgiri District Notes	... 105	U. P. A. S. I. Statistics Ship-	
Colombo Brokers' Association	108	ment of South Indian Pro-	
Inter-District Tennis Tourna-		duce during December '24	114
ment	... 112		

PRICE OF "A" COFFEE.

BY CABLE—LONDON, 13th February, 1925.

180s./—per cwt. Market Steady.

TEA SENSATIONS IN LONDON.

Under the above rather striking title, to which is added a few sensational sub-headings, our contemporary, the Ceylon Observer publishes the following by "Ex Colonist" dated London January 22nd :—

Tea sensations do not decrease; and the explanation of recent phenomena seems to have been made plain by a correspondent to the "Financial Times" to-day, who says there has been a very heavy attack on the producers with the best artillery engaged, we might

add: The attack in a daily paper coincides with this attack of the trade which follows a lengthy endeavour by three of the largest distributing houses to force down prices by keeping out of the market; both boycott and attacks have been well-timed, while an unusually early extra supply of Indian tea has come to hand; and large lines of tea shares have been thrust on the market to help on the impression.

But the principal parties interested are no doubt well aware that the boycott cannot be kept up indefinitely. The financial paper referred to has a timely leader, in which it lets the offenders down lightly. The "Central News" (not Reuter, be it noted) sent a sensational message regarding the collapse of the Colombo sale last week; and this was selected as an item of news (the first on tea) for broadcasting.

The "Financial Times" comments on the "oddity of the proceeding" even if it be "mere coincidence"!—and proceeds to assign to Colombo its proper place as a "narrow market" where a sudden sensation of buying will not be any real concern to London or the industry as a whole and proceeds with a dispassionate survey, which points to an earlier cessation of Indian shipments than usual and larger inroads on stocks before India's next new season begins—Messrs. Denton & Co. simultaneously reviewed the position anticipating a renewal of keen competition, companies being in such a strong position that they can afford to withdraw their teas if they do not get the prices they expect.

The "Mail" has a cable to-day saying the Colombo market has for some time been too high; but they cannot have it both ways—after the collapse of last week was ascribed to Colombo being a reflection of Mincing Lane! And how Messrs Joseph Tetley & Co. (also to-day) can tell the "Mail" the price is "artificially" high beats any tyro in tea affairs, for it is the "most natural" effect of demand outstripping production. "What is the explanation for restricting supplies?"—they ask as if they were talking about Rubber!

NILGIRI DISTRICT NOTES.

Kotagiri

Coming into the "running" somewhat later than other Districts with my notes, I find from the writings of others, that I am not alone in feeling certain misgivings, as to how these "Monthly Notes" are to be kept free from monotony. The only way it seems to me, to arouse interest, and drive Planters into making the "Chronicle" more interesting and "lively," is to raise controversies with regard to planting matters. There are many old Planters who have acquired very valuable experiences, who if you meet them in the flesh are quite ready and willing to impart their knowledge to the younger generation, but who cannot be induced to take up their pens, and put their views on paper. Is it because the idea has gained credence, that a good "field-worker" seldom possesses the virtue of being a good deskman as well? However for "better or for worse" as "Shevaroy Hills" puts it, here goes.

Coffee Prices. These have been the main topic of conversation since the "feelers" from the dealers commenced to come round, and these "feelers"!—they really are master-pieces of cleverly worded cunning, out to catch the unsophisticated planter, who either through want of ready cash, hasty judgment, or too eager to seize what he thinks a good offer, is made to part with his crop at unsatisfactory prices. Would it not be an excellent thing if the "Chronicle" sent round weekly leaflets just before and during this most important time of forward contracts, and keep men advised as to how prices are going? Most estates have sold their crops at prices ranging between 70 and 96-8-0 nett and S.130 to 155 C. I. F. Why this big difference? Is it altogether impossible for Planters in their own interests to combine and sell their produce at more equitable rates? Now that parchment has all mostly been sold to the big dealers we will soon be going through the same haphazard method of sales of the inferior grades with the petty native dealers that come round. And that reminds me. Why is it, that in this district, it seems to have become a custom to sell dried cherry tails, &c., to native dealers by the "heaped" bushel? Does this custom prevail in any other district? A heaped bushel is not a standard measurement, and can only tend to confuse calculations as to out-turn of estate crops &c. I have steadily set my face against the custom, and have refused to listen to the suave and wily blandishment of the native dealer; that I am going against "Mamool," that his calculations will be upset &c., but a firm "take it or leave it" generally ends in less talk, and business being done!

Green bug:—Like the Shevaroy has been on the increase this year suddenly appearing sporadically all over the estate, and not as in the past, confining itself to well-defined areas.

Thefts:—This is a time of year when the Coffee Planter needs to keep a very sharp look-out over his produce. It has to be carefully watched, from the tree till the time it reaches the curers, it is liable to be pilfered. one man lost $5\frac{1}{2}$ tons of Parchment out of 60 while in transit from his estate to Mettupollium, and no trace of the thieves. Thefts of all descriptions from estates, are on the increase, the tea man sharing alike with the coffee man. Thefts of tea plants both out of the clearings and the nurseries are reported from several estates. As for tea-prunings these have been robbed wholesale. The suggestion that a fund be raised from which to pay suitable rewards (something really attractive) to informers or the Police, on a conviction being obtained, is no new one, and is the only way that I can see of the Planter helping himself.

Weather:—We have had a longish spell without rain, and there are those amongst us who think that it is quite time we were given some! Coffee began to ripen up with a rush at first, and it was thought that the harvesting of the crops would be a quick matter this year but frosty cold weather and the absence of rain soon put a check to this. Tea flush was also retarded.

Social:—We have had the usual round of Xmas and New Year festivities with glorious weather. Mr. Frank Cockburn was in excellent form on the rifle range and carried off two cups, Mr. Eric Fennel, a young and promising shot had bad luck with his rifle, but in spite of this managed to secure the third cup. Mr. W. Deane, our oldest member, (he has passed his 3 score years and ten) has just returned from a very satisfactory time spent in England and the continent, looking younger and very fit, so fit that rumour has it that he must have gone in for a certain "gland" treatment, but then this is only "rumour", and little importance need be attached to it.

Kullakumbv.

Ol. Thefts:—There have been several thefts of tea plants and tea seeds from Estates, more serious than any previous thefts have been, on one or two Estates they have even gone so far as to pull the supply plants up from the clearing leaving the fern (that was put round as shade) alone. This wholesale robbery has caused a lot of uneasiness in this district.

Tea Prices:—These have been keeping up very well and one can only hope they continue to do so.

Pests:—Like the Shevaroyes, some coffee Estates have the same complaint to make as to Greenbug. Tea however seems to be looking pretty fit, though in some places red spider seems to be making hay while the sunshines.

Social:—Mr. & Mrs. Dandison are on their way Home for a spell.

Droog District or Droog Range.

On the 12th and 13th instant nearly an inch of rain was registered.

The estates are looking particularly well for the time of year.

Lieutenant L. J. Elkington (R. N. retired) has left for a few months in Egypt and Europe. Mr. R. J. Layard of Ceylon has arrived and is residing on his estate, "Parkside" (formerly Pilloor.)

Ootacamund.

February being socially one of the dullest months in these hills, the residents of Ooty are keenly looking forward to the Planters' Sports Week in March. Though occasionally a bit windy, the weather during the winter months and up to the end of March is perhaps the most perfect in the world, and a thoroughly enjoyable time may be anticipated by our sporting visitors. Among the many other attractions of Ooty there are the well-run Assembly Rooms, where there is an up-to-date Cinema showing really fine films on Wednesday and Saturday afternoons at 5 and 5.30 P. M. respectively. Further, a popular Station Dance is held in the same Rooms every Tuesday at 5 o'clock. The above current events together with the interesting programme of the Sports Committee, it is hoped will give our visitors in March many "a crowded hour of glorious life".

The Coonoor Jam Factory, it is rumoured, will be closed on the 1st. March next. The Government have successfully demonstrated the feasibility of making really first class jams in the Nilgiris, and beyond this they cannot be expected to go. It is now up to private enterprise to keep the concern going as a purely commercial undertaking. Abundance of good and cheap fruit is to be had in and around these hills; and there is no reason why such a Factory should not give a good return to investors if managed on business principles, and on a larger scale than at present. Our wealthy plutocrats may well consider the proposition.

The usual canard is flying about at this time of the year announcing that all the houses of Ooty, Coonoor, and Kotagiri, are already booked, and that bumper seasons are assured all round. But such sanguine rumours should be accepted *cum grano salis*. Something similar was heard last winter, yet 1924 was the poorest season on record, and scores of houses remained untenanted. There is a general impression abroad that annual visitors to these summer resorts are steadily decreasing in numbers; and the main reasons

given for this deplorable state of affairs are, unjustifiably high rents and the unkempt, delapidated, and often unclean condition of the houses. If the above be based on fact, then it is evident the present-day landlord fails to grasp the necessity of maintaining the European standards of efficiency and comfort that have hitherto attracted visitors. There is a growing feeling that Municipal and other public authorities would be wise to move in the matter before it is too late to save the situation. The popularity of all summer resorts depends very largely on the public amenities available to holiday folk; and when these are offered on an ever diminishing scale, decline and decadence of such settlements must inevitably follow.

COLOMBO BROKERS' ASSOCIATION.

The following extracts are from the Report of the Colombo Rubber Market for year 1924.

Due to the fact that, both the average price obtained, and the exportable maximum allowed under the Stevenson Restriction Scheme were less than for 1923, it is impossible to look back upon 1924, from the Rubber Producers point of view, with feelings of complete satisfaction, but, undoubtedly, assisted by an increased consumption, it is at last evident that restriction has removed the bogey of superfluous stock, which, like the sword of Damocles, has been suspended over our heads for so long, and a healthy optimism for the future appears to be fully justified.

During the year under review, there has again been no alterations in methods of sale on the local market. The quantity of rubber offered at the weekly public auctions throughout the year has averaged about 330 tons, which is slightly higher than for 1923. The quantities disposed of by private treaty have again been well maintained, but there has still been but little business to report under forward contracts, until towards the close of the year, when a few sellers appeared inclined to accept the rather higher prices which were obtainable.

All the rubber offered has been readily absorbed at very satisfactory prices.

Prices for No. 1 grades opened for the year at 78 cents and showed very little fluctuation for the first two months. After the first week in March, however, an almost steady decline commenced,

which was not really arrested until early in July, the lowest prices for the year being touched on May 20th—crepe 52 cents, sheet 50 cents, and June 24th crepe 53 cents, sheet 52 cents. From early in July to the close of the year, the upward swing of the pendulum has been exceedingly well maintained, the highest prices for the year—crepe Rs. 1'05, sheet Rs. 1'04 being reached on December 30th. The distinctive feature of the market over the later months, was undoubtedly the high prices obtained for off and inferior grades, which were selling towards the close of the year at only very little below standards.

Stocks in godowns in Colombo, as ascertained by the Colombo Rubber Traders Association have been rather heavier than usual over the greater part of the year, but show a welcome return, to what is probably a normal figure, towards the close. It must be borne in mind that the figures do not include native owned rubber, but under present conditions, it is not estimated that this is at all abnormal.

The export figures show total quantity exported for the year, of 37,351 tons, 239 tons more than for 1923, the average for the preceding 5 years being 41,325 tons. The figures do not include rubber imported from outside Ceylon for sale on the local market.

Imported rubber for the year amounted to 3,064 tons as against 2,444 tons in 1923, and 2361 tons in 1922. As was only to be expected, the quantity received from the Straits showed a slight falling off, whilst the quantity from India increased by about 450 tons, the larger quantities from the latter place being presumably attracted to the local market by the relatively higher prices obtainable here than elsewhere.

As usual America has again been our best customer, taking 67'6% of the total shipments. Exports of the United Kingdom show a considerable decrease on last year's figures and are lower than they have been for years. Those to the Continent show a very welcome increase, and there seems little doubt that owing to the advantages of direct and cheaper freight, American and Continental buyers are making greater use of the opportunities afforded them in the Eastern markets, to the mutual benefit of all concerned.

Shipments of latex for the year amounted to 59,333 gallons against 11,431 gallons for 1923. All but 120 gallons of this total were shipped during November and December, with the expected result that Government brought it under the provisions of the Restriction Ordinance as from 1st January, 1925. Taking this factor into account and shipment difficulties and the present price of dry rubber, there seems little likelihood of this method of dealing with the product finding much further favour with producers in Ceylon.

There has again been ample freight space throughout the year to all ports. Rates to the United Kingdom were advanced from 52s. 6d. per ton of 50 cubic feet to 57s. 6d. early in June and a further 5s. to 62s. 6d. from the 15th December. American rates were advanced 5s. to 35s. early in March and a further 5s. to 40s. in sympathy with United Kingdom rates on the 15th December. Continental rates were advanced from 35s. to 40s. on 1st May and a further 5s. on 15th December.

The rupee exchange has been consistently against the producer throughout the year, the average 3 months rate @ 17'47d. being nearly 1½d. over par and practically a penny higher than the rate for 1923 which was 16'57d. The normal seasonal decline, which is expected to show itself early in the year was almost conspicuous by its absence and from April onwards, rates have been consistently appreciating month by month.

Up to the end of July the maximum exportable under the Restriction Scheme remained at 60%. Owing to the break in prices cuts of 5% became operative on the 1st August and 1st November, so that for the last two months of the year estates were working on a 50% basis. Various minor steps were taken during the year to further tighten control and a number of anomalies were removed.

The most cheering feature in the whole situation has undoubtedly been the steady diminution of stocks in both the United Kingdom and America. Stocks in London and Liverpool which stood at 64,615 tons at the close of 1923, had been reduced to 31,965 tons at the close of 1924—a reduction of over 50 per cent. The world stocks at the end of 1924 may be safely put down as showing a reduction of between 50,000—60,000 tons as compared with those at the end of 1923. If the present rate of world consumption can therefore be not only maintained but increased considerably from year to year, as may be reasonably expected, it would look as if the ultimate success of the restriction scheme were assured and that the dawn of a brighter day for the producer, was not far distant.

May we echo the pious hope that, once rubber stocks in London are reduced to the bare minimum, there may be far fewer of those sudden disturbing fluctuations in price, which are the bane of all who have the welfare of the industry truly at heart.

THE QUILON MEET.

The usual half yearly Planters Meet was held in Quilon from 5th to 8th February. It was very well attended, and will rank as one of the most successful of recent years. The Tennis was of an unusually high standard, the final results being as follows:—

Mens Singles. (Cup presented by Malayalam Plantations Ltd.)

J. C. G. Glen (+ $\frac{2}{6}$ 15) beat R. A. Kirkby (+ $\frac{2}{6}$ 15.)

7—5, 6—3

Mens Doubles.

A. P. D. Lodge and T. G. Glen (—40) beat

J. C. G. Glen and J. M. Mortimer (Ser.)

6—4 8—6.

Mixed Doubles.

Mrs. Coghlan and T. G. Glen (Scr.) beat

Mrs. Chambers and E. La V. Parisot (+ 15.)

6—4, 4—6, 6—4.

The results of other events were

Bridge.

A. H. Feltham and J. S. Bruce beat

G. McPherson and E. J. Thom.

Snooker.

J. S. Bruce beat J. Mackie.

The great event of the meet was the Fancy Dress Dance held on the Saturday night. Considerable ingenuity was displayed in the costumes, the majority of which were locally made, and great difficulty was experienced in selecting the prize winners. The floor was packed to its utmost capacity and dawn was on the verge of breaking (or was it the moon setting?) before there was any noticeable thinning of the ranks. The rugged talent displayed in the finale has given rise to the suggestion that the All Blacks might be asked to tour the Malabar Coast!

Dresses. Ladies:—Mrs. Henderson, Russian Peasant; Mrs. Eyre and Mrs. Chambers, Harlequin; Mrs. Lampard, Mrs. Gill, Miss Jodrell, Turkish Ladies; Mrs. Lodge, Dick Whittington; Mrs. C. J. Hall, Gipsy; Mrs. Jacob, Hawaiian; Mrs. Coghlan, Cowgirl; Mrs. E. Hall, Pierrette; Miss Gray, Cigarette; Mrs. Carson Parker, Norwegian.

Men:—J. Mackie and C. J. Hall, Tulucans; J. L. Henderson, Felix; R. A. Kirkby, 18th Century; L. A. Lampard, Arab; L. H. Jacob, Light of Asia; M. R. Coghlan, Girl; J. W. Newman, Apache; E. Lord, Uncle Sam; R. H. Cass and C. A. R. Park, Pirates; T. G. Glen, Fakir; A. H. Feltham, Cat Burglar; D. L. Wilson, Glasgow

Highlander; J. S. Bruce and J. M. Clarke, French Artists; A. Dunn, Jester; G. Macpherson, Dutchman; R. F. Hughes, Commissionaire; R. N. W. Jodrell, L. J. T. Polgreen, J. A. Gill, A. P. D. Lodge, J. M. Mortimer, J. B. Crook, H. M. Chambers, H. R. Carson Parker, E. Hall, Pierrots.

The prizes, given by Mr. Mackie, were awarded to Mrs. Gill and D. L. Wilson.

The meet terminated on the Sunday evening with the presentation of prizes by Mrs. D. G. Cameron of Mahendragiri Estate.

INTER-DISTRICT TENNIS TOURNAMENT.

Will Planters' Association Secretaries kindly send me their entries as early as possible for the above tournament to be played at Ootacamund on March 23rd & 24th next.

STUART HAWKINS.

Nettigudi Estate.

Mattupatti P. O.

Via Periakulam.

PLANTERS' WEEK.

Inter-District Tennis Tournament.

For the convenience of Districts contemplating entrance in the U. P. A. S. I. Inter-District Tennis Tournament this year, we publish below the Rules of the Tournament.

Rules.

1. The following shall be eligible to play:—

(a) European employees of Estates belonging to a District Association affiliated to the U. P. A. S. I. Both the Association and the players must be members of the U. P. A. S. I. Sports Club.

(b) European employees of the U. P. A. S. I. being members of the U. P. A. S. I. Sports Club,

2. Each District and the U. P. A. S. I. may be represented by a team of not more than three players.

3. The tournament shall be a knock-out one and shall be held annually during Planter's Week under the auspices of the U. P. A. S. I. Sports Club.

4. The matches shall consist of four singles (best of 3 setts) and one doubles (best of three setts). (In explanation of above Rule, four singles means that each of two players in a team shall play a singles against each of two players in the opposing team).

5. The matches shall be decided on points calculated as follows:- For each singles the winner shall score one point for his side. For the doubles, the winners shall score 3 points for their side.

6. In all matches, two singles shall first be played, followed by the doubles, and then (if necessary) the other two singles.

7. In the event of any dispute arising, the matter shall be referred to the Upasi Sports Club Committee whose decision shall be final.

Inter District Golf.

1st day 21st March—Qualifying rounds. 2-30 p. m.

2nd day 22nd March—Match play. 10-15 a. m. & 3 p. m.

Conditions.

If 6 or more districts enter the best 4 will qualify.

5	...	...	3	...
4 or less	...	...	2	...

In the qualifying round district pairs will not be allowed to play round together. As far as possible entrants with even handicaps will be sent off together. Each player to keep the other's card.

Qualification will be on the combined cards of each district pair.

The Ootacamund Golf Club local rules will be found on the back of each card and should be read before play by those who have not played before on the Ooty links.

The draw for inter-district match play on the 2nd day will take place after the qualifying rounds on the evening of the 1st day in the Golf House.

G. N. FULCHER,
Honorary Secretary,
U P.A.S.I. Sports Club.

12th February 1925.

U.P.A.S.I. STATISTICS. SHIPMENT OF SOUTH INDIAN PRODUCE during DECEMBER, 1924.

From.	To other ports in India.	Ceylon.	United Kingdom.	Europe.	Asia.	Africa.	America.	Australia.
TEA.								
Madras	10488	...	271677	3670	200	...	...	...
Calicut	71915	45844	2203135	...	...	...	...	...
Cochin	103940	45729	1004131	...	...	1260	...	...
Tellicherry	...	...	173100	...	...	...	...	...
Tuticorin.	...	282755	1242628	50	...	...	...	...
Alleppey	804	14052	94864	...	...	...	...	...
Totals.	187147	388380	4989535	3720	200	1260	...	...
Previously	593340	2348793	21734384	60751	5701	4920	114895	...
Total lbs. since 1-1-1924.	780487	2737173	26723919	64471	5901	6180	114895	...
COFFEE.								
Madras	390	...	...	...	5	...	...	...
Calicut	...	...	676	...	...	...	...	...
Mangalore	317	...	...	161	1451	...	...	...
Tellicherry	...	...	960	220	...	...	...	...
Bombay	...	...	...	...	279	...	...	...
Totals	707	...	1636	381	1735	...	...	...
Previously	10090	25	42083	133130	18984	103	701	8625
Total cwts. since 1-1-1924.	10797	25	43719	133511	20719	103	701	8625
RUBBER.								
Calicut	...	70622	169582	...	...	...	...	...
Mangalore	...	60183	...	...	...	...	...	...
Tellicherry	...	...	30413	...	...	...	...	...
Tuticorin	...	121073	12900	...	...	...	...	...
Alleppey	105	188039	8150	19977	273	...	...	...
Cochin	...	263459	513526	35840	...	1284	205538	...
Totals	105	703376	734571	55817	273	1284	205538	...
Previously	14807	3932959	3756352	76659	839	4756	664059	241
Total lbs. since 1-1-1924.	14912	4636335	4490923	132476	1112	6040	869597	241

10151636

The Planters' Chronicle.

Recognised as the Official Organ of the U. P. H. S. L., Incorporated

Secretary's Registered Telegraphic Address "UPASI," MADRAS.

Mr. EDWIN VINCENT.—Managing Editor, Coimbatore,

Telegraphic Address:—"CHRONICLE," Coimbatore.

VOL. XX No. 8.]

FEBRUARY, 21ST 1925.

[PRICE AS 8

CONTENTS.

	PAGE.		PAGE.
The Tea & Rubber Markets	115	U. P. A. S. I. Sports Club ...	124
A Planters' Wedding at		Planters' Week ...	127
Coimbatore ...	117	Exports of Indigenous fer-	
District Notes ...	117	tilisers and Rice from Madras	
South Travancore Planters'		Presidency ...	128
Association ...	119	The Workman's Breach of	
Anamallai Planters' Associa-		Contract Act ...	129
tion ...	120		

PRICE OF "A" COFFEE.

By CABLE—LONDON, 20th February, 1925.

175s./—per cwt. Market Quiet.

THE TEA AND RUBBER MARKETS.

The month of January this year is deserving of record. Possibly it may appear difficult to see the wood on account of the trees, but the truthful future historian will undoubtedly pitch upon the opening of this year as marking an epoch, in the sense of the common interpretation of the word, a memorable date.

Beginning with the statistical position of Tea it was not until the early part of January, or to be absolutely correct, late in December that the apparently strong position of the commodity was challenged. In the middle of January our London correspondent pointed out that the stock in bond in the United Kingdom on 31st December 1924 was 204,333,000 lbs against 165,666,000 lbs., in 1923. Imports for the year showed an increase of 55,800,000 lbs,

but deliveries being only 20,750,000, more, there was an actual advance of nearly 40 million lbs in stocks. This advance was attributed to unusually early arrivals especially from Northern India which were said to be nearly three months ahead of time. A writer in Truth however found the figures such as to refute the idea that consumption was rapidly outstripping production and was probably right. This being the case it is disconcerting to read his opinion of the plain fact viz., that estates in Ceylon and the Dutch Indies have been tempted by high prices to increase their crops more rapidly than was expected. The American demand was actually less in 1924 than in 1923 in spite of the intense advertising campaign and it is of course a truism that consumption *per capita* at home invariably falls off when the price rises beyond a certain limit. Against this however there is to be recorded the fact that direct shipments from sources of origin have shown a considerable increase to places outside the United Kingdom.

It is probable that the fall in prices experienced during the month is partly due to the disclosure of the actual stock position and partly to the attack on the market tactics of some of the big distributing houses. The position as at the end of January will again have considerable bearing on the price of tea, the seasonal decline in stocks may or may not have begun, and the question of increasing stocks being due to earlier shipments or to increased Ceylon and Dutch production will be more clear.

The rubber market during the month has been of considerable interest for an entirely different reason. The question here has been what effect the average price will have on the restriction scheme. It is an extraordinary position but is nevertheless a fact that buyers are interested in keeping the price above 1 s. 6 d. for January so that the consequent increases in the exportable allowance will release larger supplies. The statistical position however is so strong that so far from buyers being able to buy at just that margin over 1 s. 6 d. which they themselves fix, it is surprising that sellers have not made use of the position to force the market up. It is true the commodity went to 1s. 8d. at the beginning of the month, but this was said to be "artificial", and at the end of January the price went to 1s. 4½d. before finally recovering. This means that the average for the restriction quarter, ending 31st January, will prove a close thing if not actually below 1s. 6d. and the exportable quota in the latter case would only increase by 5 per cent. The strength of the statistical position is shown in the fact that we have to go back to August 1920 to find stocks as low as they were in January. In August 1920 the price was 1s. 11d. and it has been freely rumoured that by the end of the current month 2s. will be reached. Current quotations however belie this optimism and it is indeed paradoxical that in the face of stocks at such a dangerously low level, the market should remain so weak.

A PLANTER'S WEDDING AT COIMBATORE.

On Wednesday the 18th instant, Mr. T. Davenport, the well known Anamallai Planter, was married to Miss May Hope whose brother Mr. R. V. Hope is also well known in the district. The ceremony was performed by the Chaplain, the Rev. H. J. Edmonds, at All Souls Church, Coimbatore and a small reception of planting friends was afterwards held at their bungalow by Mr. & Mrs. Edwin Vincent. The bride was given away by her brother and Mr. A. W. F. Mills of Gajam Mudi Estate was best man. There were also present in addition to those mentioned above, Miss Mills, Mr. & Mrs. E. Johnson of Thay Mudi, Mr. F. Simmons of Anai Mudi and Mrs. Edmonds.

DISTRICT NOTES.

Shevaroya.

Health Week.—This was opened by the Chairman of the P. A. in a short speech which was replied to by the local M. O. Capt. N. Ramaswami. The President of the Union was unavoidably absent as he was called upon at the last moment to take a Doctor in his car to one of the outlying Estates and had a breakdown, as may be expected when one wants to get back urgently. The day broke with a thick mist and a light drizzle which continued off and on the whole day but it failed to damp the spirits, of either those who took part, or the Organisers. We were treated to a pretty dance by the girls of the L. M. School, and after a dialogue in Tamil, sweets were distributed to all the children present and the Meeting then dispersed. The Magic Lantern Show did not materialize as the necessary infernal machine and the operator failed to arrive from Salem. The posters, which were promised by someone in Salem, also did not arrive till the last day, Sunday, when all the women and their children, were roped in from the Shandy and made to sit in rows on the adjacent plain and a Committee of ladies went round and selected the 3 finest babies amongst the lot, to whom the President of the Union, Mr. B. A. R. Kandaswamy Chettiar presented prizes and all the other little children were given a cotton shirt and a handful of sweets each. The Ladies had no enviable job, especially as the sun was scorchingly hot. They certainly deserve great credit for the part they took in this show. The hundreds of shirts they made in less than a week must have kept them very busy. Considering that it is the first time anything of this sort has been attempted here, it was quite a success and the organisers are to be congratulated. I would however like to point out that a show of this nature deserves all the support possible from Planters as it is an opportunity, which should not be missed, to teach their coolies how to preserve their health and rear their children.

Legislation.—Great anxiety prevails as to what is going to happen after Act XIII of 1859 is abolished as it does not seem possible to get anything through by March 1926. However we hear that we are going to get something and if what we get does not suit those who keep out of the Association, they will have only themselves to blame for not joining us and helping us to express their opinions.

Roads.—As those who have visited us are aware, these Hills are famous for their unmetalled roads. Workmen have lately been busy throwing loose earth over the thick dust. I suppose this is what is called "laying the dust."

Epidemics.—Influenza, of rather a severe type is passing over these Hills at present and several deaths have occurred amongst the coolies. In Yercaud itself, there have I hear, been over 20 deaths in the last month amongst the Indian population and many of the Europeans have had bad bouts of it. In many villages cattle are affected with something similar. Chicken-pox is also prevalent amongst the Hill Tribes.

Xyleborus Compactus.—I am indebted to the Dy. Director of Agriculture, Planting Districts, for a letter received through the Editor of the P. C. and am in communication with him on the subject.

Crops.—Some of us are still picking and most of us are pulping without water. Estimates have been exceeded, practically on all totes.

Prices.—The local Merchants say "Dull", which means they have sufficient coffee to keep them busy for the present and so are going easy in the hope of picking up bargains, which is always the game just before the Strippings and Gleanings come in.

Weather.—Most Estates had a small shower on the 13th of January last which seems to have done no harm but on the 10th of this month we registered amounts varying from 10 to 25 cents and this has started the more forward spike, which is either going to open or burn off.

General.—The Shevaroys grow some very fine peaches but this year particularly, the Bats (not Flying-Foxes) have made a dead set at them before the fruit could ripen and most of us have had to be satisfied with what we could pick off the ground. If any kind friend could tell us how to frustrate these depredations, except by netting the whole tree, I'm sure we "shall ever pray for your honor's long life and prosperity as in duty bound."

SOUTH TRAVANCORE PLANTERS' ASSOCIATION.

Minutes of the Fourth Quarterly Meeting of the South Travancore Planters' Association held at the Quilon Club at 10 a. m. on Saturday, 7th February 1925.

Present:—Messrs. E. Lord, Chas. Hall, J. B. Cook, E. Hall, W. I. Hatherell, R. N. W. Jodrell, A. P. D. Lodge, L. J. T. Polgreen and F. G. Millar (Honorary Secretary).

Visitors:—Messrs. D. G. Cameron, Geo. McPherson, Capt. M. F. Shore, M. C., M. R. Coghlan and J. O. Gray.

Mr. L. G. Knight being unable to attend, Mr. R. N. W. Jodrell was asked to take the chair.

1. Notice calling the meeting was read by the Secretary.

2. Minutes of Quarterly Meeting held on 29th November 1924, having been published, were taken as read and confirmed

3. *Planting Member for the Travancore Legislative Council.* Proposed from the Chair that a hearty vote of thanks be accorded Mr. John Mackie for his services to the planting community during the last three years. Carried unanimously.

Proposed by Mr. Lord and seconded by Mr. E. Hall that Mr. J. B. Cook be nominated by the Association as Planting Member of the Travancore Legislative Council. Carried.

4. *Application of Woodlands Estate for Membership:*—The question of admitting this Estate to membership of the Association was discussed. Meeting was of the opinion that owing to the small acreage of this Estate (48 acres), the application would not be acceptable. Secretary was instructed to write to the proprietor of the estate accordingly.

5. *Inter-District Labour Rules in regard to Absconding Coolies:* Correspondence with the Kanan Devan Planters' Association was read. Proposed from the Chair that this Association agrees to the amended Inter-District Labour Rules and that Honorary Secretary, Kanan Devan Planters' Association be asked to forward a fair copy of the Rules as they now stand.

6. *British Empire Exhibition:*—Letter dated 22nd. December 1924 from Secretary, U. P. A. S. I., was read. Proposed by Mr. Lord and seconded by Mr. Cook that, in the opinion of this Association, U. P. A. S. I. should not take part officially at the British Empire Exhibition at Wembley during 1925.

7. *European Association.* Letter dated 26th Dec. 1924 from Secretary, U. P. A. S. I. was read. Meeting was of the opinion that Chairman or Honorary Secretary of the South Travancore Planters' Association should not act in their official capacity as local representative of the European Association. Mr. Millar, however, agreed to act as representative for South Travancore, and at the meeting several gentlemen joined the Association.

8. *Labour Control Committee. Member in Waiting.* Proposed by Mr. Hatherell and seconded by Mr. E. Hall that Mr. Chas. Hall be elected *Member in Waiting.* Carried.

General Committee Meeting Proposed by Mr. C. Hall and seconded by Mr. Hatherell that Mr. Lord be asked to represent this Association at the General Committee Meeting to be held at Ootacamund on March 25th. Carried.

U. P. A. S. I. Subsidy to Labour Department. The question of allotment of above subsidy was discussed. Meeting considered that subsidy should be allocated to labour Divisions on number of coolies recruited from each Division; but pending further information, were willing to leave matters in the hands of their representative.

With a vote of thanks to the chair, the meeting terminated.

F. G. MILLAR,
Hon. Secretary.

R. N. W. JODRELL,
Chairman

ANAMALLAI PLANTERS' ASSOCIATION.

Minutes of an Extraordinary General Meeting of the above Association held at the Anamalai Club on Thursday the 12th of February 1925 at 11 A. M.

Present:—Messrs. A. C. Cotton (Chairman), C. R. T. Congreve, G. B. Reade, O. M. Hetherington, F. Imray, A. W. F. Mills, E. V. Hammond, E. N. House, E. J. Johnson, E. G. F. Maule, S. Sladden, J. E. Sampson, A. V. Danagher, D. Cooper, J. H. Ireland Jones, F. Simmons, J. Hatton Robinson, B. L. John, W. Ogilvy, C. K. Pittock, J. C. Robertson, R. V. Hope and J. A. R. Lloyd (Honorary Secretary).

Visitors:—Messrs. D. G. Munro—Dy. Director of Agriculture, E. Vincent, and M. E. S. Thompson.

The Honorary Secretary read the notice calling the Meeting.

With permission of the Meeting 'Postal Affairs' and, 'Minor Forest Produce' were added to the Agenda.

The Minutes of the Meeting held on 17-12-1924 were read and confirmed.

Township. Mr. Sampson spoke on the matter of a foreign liquor license which was granted some six months ago to Mr. G. S. S. Money of Castlecroft estate and pointed out that liquor at present was being supplied to Indians and Anglo-Indians and proposed the following resolution which was seconded by Mr. Cooper.

That this Association recommend to the Collector that the foreign liquor license granted to Mr. G. S. S. Money of Castlecroft estate, be cancelled as it is found that it is not in the interests of the members of this Association that foreign liquor should be on sale in the Anamallai Planting District.

Mr. Congreve proposed and Mr. Robinson seconded the following amendment.

That the Honorary Secretary be requested to write to Mr. Money, pointing out that there have been many complaints from estate Managers of the sale of liquor to Indian and Anglo-Indian Employees and to inform him that unless he gives a guarantee not to allow this to continue, steps will be taken to write the Collector to cancel the license.

Which was to put the Meeting and lost. Mr. Sampson's resolution was then put to the Meeting and carried.

It was suggested that a copy of this resolution should be sent to Mr. C. V. Venkataramana Ayyangar, M. L. C.

The Meeting sanctioned a sum of Rs. 2,700 of the Association money to be spent on the development of the Township. Mr. Pittock suggested that the existing shandies should be removed when the new bazaars are built and this was agreed to.

The following resolution proposed by Mr. Congreve and seconded by Mr. Jones was put to the Meeting and carried.

That this Association collect by means of a Cess and advance up to Rs. 15,000 for the immediate development of the Township, and that this advance be a first change on the development scheme of the proposed Anamallai District Board after its inauguration.

Railway. Mr. Ogilvy addressed the Meeting in Committee and explained the present position.

Ropeway. The Chairman and Mr. Robinson spoke on this subject, and it was suggested that the Ropeway should be extended to Angalakurchi, as it would be found impossible for anybody to live close to the foot of the ghat on account of fever.

Labour Department. The Budget for the coming year was read and the Chairman proposed.

"That the Coimbatore Division Budget for Rs. 55,886/- be accepted by this Association." Carried.

On the proposal of Mr. Pittcock seconded by Mr. Robinson Mr. Cooper was elected active member for the Srivilliputtur division and on Mr. Congreve's proposal seconded by Mr. Jones, Mr. John was elected member in waiting.

Mr. Congreve proposed a vote of thanks to Mr. Pittcock for all the work that he had done in connection with the work on the Coimbatore Control Committee. Carried with acclamation.

European Association. The Hon Secretary informed the Meeting that all the members with one exception had now joined the Association. The following resolution proposed by Mr. Lloyd and seconded by Mr. Ogilvy was put to the Meeting and carried.

"That the Hon. Secretary of the Anamallai Planters Association be the local representative of the European Association."

District Church. The Honorary Secretary explained the position, and the result of his recent circular, Mr. Sladden proposed and Mr. Johnson seconded the following resolution.

"That a special Church Committee be elected to push the matter of erecting a Church in the District." Carried

Mr. Jones proposed and Mr. Simmons seconded.

"That the Committee be composed of Messrs. Sladden, Johnson, Cooper, and Ogilvy." Carried.

Empire Club. The Hon. Secretary informed the Meeting that 37 members of this Association have agreed, in the event of the club materialising, to become members.

Postal Affairs. Mr. Sampson informed the Meeting that in almost every case local letters through the Valparai Post Office took two days to be delivered. Mr. Congreve informed the Meeting that in November he posted a number of letters, all containing cheques, and that up to date none of them have ever been received.

The Hon. Secretary was instructed to write to the Superintendent of Post Offices, Nilgiris Division, drawing his attention to the present unsatisfactory state of the postal arrangements in this District.

Angalakurchi Chattram. The Chairman explained the present position to the Meeting and stated that the land upon which it was proposed to build the Chattram had to be acquired, but that he hoped this would be effected in about six weeks' time.

Mr. Pittock said that when the Chattram was built he hoped that would be properly looked after and suggested that the Coimbatore Control Committee be asked to locate their Kottur Agent at the Angalakurchi Chattram.

Mr. Johnson inquired the position of the non-subscribers to the Labour Department and was informed that as far as the use of the Chattram was concerned, the position of all members of the Anamalai Planters' Association—whether subscribers to the labour Department or not—would be identical.

Election of New Members. The following new members and estate were duly elected.

Proposed by Mr. Congreve and seconded by Mr. Ogily-Velimalai estate

do	Mr. Jones	do	Mr. Reade-Mr. Williams.
do	do	do	do -Mr. Daughlish.
do	Mr. Cooper	do	Mr. Danagher-Mr. John.

District Board. The Hon. Secretary informed the Meeting that he had had an interview with Mr. P. L. Moore, Minister of Local Self Government and explained what had taken place. The matter was discussed in Committee and the following resolution proposed by Mr. Pittock and seconded by Mr. Simmons was put to the Meeting and carried.

That this general Meeting of this Association is in favour of the District Board being started on the basis of a voluntary acreage tax, provided Government in the near future take steps to legalise this tax under the Local Boards Act.

Minor Forest Produce. Mr. House having resigned the Secretaryship due to his proceeding Home on furlough Mr. Cooper kindly undertook to carry on the work.

Correspondence. Read letter from Mr. Simmons to the Chairman re letters in the 'Hindu'. Recorded.

Read letter from the Honorary Secretary, Coimbatore Chamber of Commerce re Banking Facility in Pollachi.

The Honorary Secretary was instructed to write and inquire the amount of cash that would be available at any one time for cashing cheques and also what discount would be charged.

Election of Office bearers. Messrs. Cotton, Congreve, Robinson and Lloyd having resigned as they are proceeding on Furlough the following were elected in their places.

Chairman	—	Mr. Simmons.
Secretary	—	Mr. Sampson.
Committee	—	Messrs. Pittock and Jones.

Mr. Congreve proposed a hearty vote of thanks to the out-going Chairman and the Honorary Secretary, which was carried with acclamation.

Messrs. Cotton and Lloyd having replied the Meeting terminated

(Sd). A. C. COTTON,
Chairman.

(Sd.) J. A. R LLOYD,
Honorary Secretary.

U. P. A. S. I. SPORTS CLUB

Planters' Week.

AT OOTACAMUND. 21ST TO 29TH MARCH 1925.

PROGRAMME.

- Saturday 21st March.* (a) Ootacamund Gymkhana Club
Annual Tennis Tournament
opens, 10-15 a. m.
- (b) Inter-District Golf [1st Day] 2-30 p. m.
- (c) Rugby Football Trial Match,
[Hobart Park] "The Rest"
Vs. Wellington. 5-15 p. m.

(d) Cinema Performance, Assembly Rooms. 5 p. m.

(e) Afternoon Dance, "Woodside" 6 p. m.

(Madras Police Band).

Sunday 22nd March Inter-District Golf [Last day] 10-15 a. m.

" " " [Final Match] 3 p. m.

Monday 23rd " (a) Inter-District Tennis [1st Day] 10-30 a.m.

(b) Ootacamund Gymkhana Club Annual Tennis Tournament [2nd day]. 11-30 a. m.

(c) The "Carver" Rugby Challenge Cup, [Hobart Park] The Anamallais Vs. "The Rest" 5-15 p. m.

(d) Dance at "Woodside" 9-30 p. m.

(The Anamallai Planters Jazz Band).

Tuesday 24th " (a) Inter-District Tennis [Last Day] 10-15 a. m.

(b) Ootacamund Gymkhana Club Annual Tennis Tournament. [3rd Day]. 10-15 a. m.

(c) Afternoon Concert & Dance at the Assembly Rooms, (Madras Police Band). 5-30 p. m.

(d) Mr. J. J. Murphy's Dance at "Woodside" 9-30 p. m.
"Madras Police Band".

Wednesday 25th " (a) Ootacamund Gymkhana Club Annual Tennis Tournament [4th Day]. 10-15 a. m.

-
- (b) Police Sports [Hobart Park]. 4 p. m.
(Madras Police Band).
- (c) Cinema Performance—Assembly
Rooms. 5-30 p. m.
- (d) Afternoon Dance at "Wood-
side" 6 p. m.
(The Anamallai Planters Jazz Band).
- Thursday 26th March** (a) Ootacamund Gymkhana Club
Annual Tennis Tournament
[5th Day] 10-15 a. m.
- (b) Grand Fancy Dress Ball—
Assembly Rooms. 9-30 p. m.
(Madras Police Band).
- Friday 27th** „ (a) Cricket Trial Match, 11 a. m.
[Hobart Park]
- (b) Afternoon Dance "Woodside" 6 p. m.
(Madras Police Band).
- Saturday 28th** „ (a) Genetal Meeting of U.P.A.S.I.
Sports Club—Masonic Hall 10-15 a. m.
- (b) Cricket—The Planters Vs.
M. C. C. [1st day] 11-30 a. m.
- (c) Cinema Performance—Assem-
bly Rooms 5 p. m.
- (d) Afternoon Dance "Woodside" 6 p. m.
(Madras Police Band).
- (e) Amateur Theatricals by the
O. A. D. S. & W. A. D. S. 9-30 p.m
- Sunday 29th** „ (a) Cricket—The Planters Vs.
M. C. C. [2nd Day] 10-45 a. m.
- (b) Dinner to M. C. C. Team at
Ootacamund Club. 8-30 p. m.

This programme is subject to alterations which would be notified at a later date.

PLANTERS' WEEK.

Mr. J. J. Murphy's Dance

Mr. J. J. Murphy, the well-known Mundakayam Planter, has signified his very kind and generous intention of giving a Dance at "Woodside" during the coming Planters' Week. Mr. Murphy has asked me to make the necessary arrangements on his behalf and this I have much pleasure in doing. Mr. Murphy is giving this Dance to his fellow Planters and their Ladies and to the Ootacamund residents.

Planters coming to Ootacamund for Planters' Week are asked to kindly accept the following as a general invitation from Mr. Murphy.

PLANTERS' WEEK. 1925.*Mr. J. J. Murphy*

Yendayar Estate, Mundakayam, Travancore

*requests the pleasure of the company of***The Planters of Southern India and their Ladies.***at a Dance**to be held at "WOODSIDE." Ootacamund.**on Tuesday, 24th March, at 9-30 p. m.*

R. S. V. P.

to N. C. WHITTON,

"Gretna,"

Ootacamund.

As the accomodation at "Woodside" is limited, Planters accepting Mr. Murphy's kind invitation should advise me to that effect at the earliest possible date.

Ootacamund, }

18th February 1925. }

N. C. WHITTON,

President,

U. P. A. S. I. Sports Club.

would like the Government of India, to repeal all such legislation on their Statute-book. There are still some Acts in which a breach of contract of service is treated as a criminal offence, such as the Assam Labour and Emigration Act of 1901. I know the offending sections in that Act are withdrawn by notification. Still, I would like the Government of India to remove these sections from the Statute-book altogether. I would also like the Government of India to revise section 491 of the Indian Penal Code in conformity with their object which is to repeal all legislation which treats a breach of contract of service as a criminal offence. Sir, I again thank the Government of India for bringing forward and getting this legislation passed.

Mr. Chaman Lall (West Punjab : Non-Muhammadian): Sir, I also add my congratulations to those of *Mr. Joshi*, to the Honourable the Home Member for having brought in this Bill and I am glad to see the Honourable the Law Member (*Sir B. N. Sarma*) sitting in his place because, if my memory serves me right, it was he who brought in an amendment on a previous occasion to ask for the repeal of this particular measure. Sir, there is no doubt whatsoever that the offending measures which still remain on the Statute book ought to be repealed and I also ask the Honourable the Home Member to take the earliest opportunity to amend, if he cannot see his way to repeal, section 491 of the Indian Penal Code. That is a measure which savours also of breach of contract and it ought to be certainly amended if not entirely repealed. I have nothing more to add except merely to express my disappointment that this Bill takes effect from April, 1926. I wish the Honourable the Home Member had brought it in to take effect almost immediately. We have discussed this measure in the country, the Assembly has discussed it on several occasions and the employers have had plenty of time to make all the necessary arrangements which are contingent upon the passing of this measure and there is no reason why this Bill should not have been brought in to take effect almost immediately. I am afraid it is too late to send in an amendment, but I do hope that, in view of the passing of this Act, no proceedings of any kind will be instituted against workers in any part of India under the various Acts which are hereby being repealed.

Mr. President. The Question is:

"That the Bill to repeal certain enactments whereby breaches of contract by labourers are made punishable under the criminal law, as amended, be passed."

The Motion was adopted.

[*Note.*—The debate in the Council of State will appear next week.—*Ed. P. C.*]

The Planters' Chronicle.

Recognised as the Official Organ of the U. P. M. S. I., Incorporated

Secretary's Registered Telegraphic Address "UPASI," MADRAS.

Mr. EDWIN VINCENT.—*Managing Editor, Coimbatore,*

Telegraphic Address—"CHRONICLE," Coimbatore.

VOL. XX No. 9.]

FEBRUARY, 28TH 1925.

[PRICE AS 8.

CONTENTS.

	PAGE.		PAGE.
The Rubber Position	... 131	Ex-Soldiers	... 146
The Workmen's Breach of Contract Act	... 132	Estimated Tea Crop 1924-25.	146
Shevaroy Planters' Association	... 138	The United Planters' Association of Southern India	... 147
Planters' Week	... 145	U. P. A. S. I Sports Club	... 149
Cumblies	... 146	Letters' to the Editor	... 149
		U. P. A. S. I. Sports Club	... 150

PRICE OF "A" COFFEE.

BY CABLE—LONDON, 27th February, 1925.

175s./—per cwt Market Quiet.

THE RUBBER POSITION.

We referred last week to the position created by the doubt whether the average price for the restriction quarter ended January 31st would reach 1s. 6d. If that figure had been reached the exportable allowance of 50 per cent would have been increased by 10 per cent but, as a matter of fact, the average failed by a minute margin to reach the eighteen penny mark.

How near a thing it was is indicated by the fact that the average price for the past 3 months was actually 1s. 5. 9983 d. or less than a five-hundredth part of a penny below 1s. 6d.

There was a keen fight over the price of rubber on the last day of the month, which eventually closed at 1s. 5d. per lb., bringing the average price just below 1s. 6d. per lb.

This means that the exportable allowance from British Malaya and Ceylon during the coming quarter will be only 55 per cent, against 50 per cent, for the past quarter, whereas if the price on January 31st., had been 1s. 5¹/₂d. or more the average price for the past quarter would have reached 1s. 6d. and the exportable allowance would have been raised to 60 per cent.

Powerful opposing interests have been at work, says a home contemporary. Generally speaking, the American buyers wanted to get the average up to 1s. 6d. in order to have the biggest possible production for the next quarter. The British plantation companies were divided. Some thought the bigger output could easily be absorbed at good prices. Others thought the smaller output was desirable in order to keep prices up. Speculators ranged themselves on one side or the other, and may have played an important part in the final result.

ACT XIII OF 1859.

THE WORKMEN'S BREACH OF CONTRACT ACT.

Last week we published extracts from the official Reports of the debate in the Legislative Assembly on the bill to repeal the above act. As promised then we print below some portions of the debate in the Council of State in the same connection. Planters will read with interest the contribution of Sir Maneckji Dadabhoy to the discussion.

Council of State 5th Feby. 1925.

THE WORKMEN'S BREACH OF CONTRACT (REPEALING) BILL.

The Honourable Mr. J. CRERAR (Home Secretary): Sir, I beg to move.

"That the Bill to repeal certain enactments whereby breaches of contract by labourers are made punishable under the criminal law, as passed by the Legislative Assembly, be taken into consideration."

I do not think that I need detain the House very long in explaining the object of this small Bill. Honourable Members will observe that the operative parts of the Bill are the repeal of the Workmen's Breach of Contract Act, XIII of 1859, and two cognate sections of the Indian Penal Code. The Act with which we are concerned is an old Statute which was passed in circumstances very dissimilar from those which prevail to-day, and the equity of its application has in recent years been more than once called into question. In 1920 an amending Act was passed which had the effect of removing some of the provisions of the Statute which it was considered might be specially liable to result in hardship in individual cases; and since then the whole question of the principle involved in the Bill has come under careful consideration on more than one occasion. On the last occasion an undertaking was given by the Honourable the Home Member that the Government of India, after having considered opinions received after consultation with the Local Governments, would introduce a measure to repeal this Act. It is in fulfilment of that assurance that I now make this motion. It has generally been recognised that under modern conditions such a measure as Act XIII of 1859 is unsuitable for retention on the Statute-book, at any rate as a measure of universal applicability. It is possible that in certain tracts where special conditions operate some measure of this kind may conceivably be necessary. But it is obviously appropriate that if any such measure is necessary it should be undertaken by the Local Governments in whose jurisdiction such special conditions are found to subsist. While the Statute-Act XIII of 1859, was under consideration, the Government of India took the opportunity of consulting Local Governments and public bodies of various descriptions regarding the two cognate provisions in the Indian Penal Code, section 490 which deals with the breach of Contract of servants during a voyage or journey and section 492 which deals with breach of contract to serve at distant places to which a servant is conveyed at the master's expense. Section 490 is practically a dead letter, and I have hardly been able to discover a single instance in recent times in which it has been put into effect. Section 492 is so similar in substance to Act XIII of 1859 that any decision to repeal Act XIII of 1859 would almost, as a matter of logical consistency, involve the repeal of section 492 of the Indian Penal Code. Honourable Members will observe that it is intended that this Bill if passed should be brought into operation on the 1st April 1926. The object in fixing that date is to enable all the interests affected to adjust themselves to the conditions which will supervene on the repeal of the enactment which I have mentioned, and also to enable any Local Government which finds reason to believe that in its jurisdiction or any portion of its jurisdiction some substituted measures are necessary, to undertake at leisure such legislation as they may consider necessary.

Sir, I move that the Bill be taken into consideration.

The Honourable Sir MANECKJI DADABHOY (Central Province : General):

Sir, I rise to lend my support to this Bill but not without a tinge of sorrow and some disappointment. Sir, this Bill has taken its birth in the two Resolutions that were moved by Labour Members in the Assembly. A new spirit has now arisen in some parts of the country and particularly in the Assembly, a spirit which I am sorry to say is destructive of all privileges of capitalism and a spirit destructive of all industrial progress and activity. This spirit kept within safe and limited bounds will be helpful to the country in the matter of maintaining the health and safety of the working classes and to the general progress of the country. But, if this spirit, which has now arisen, is allowed to be carried beyond limits and oversteps the boundary of moderation, this country will regret the day and that too very sadly. The Government of India have unfortunately in a moment of righteous weakness given way to the blandishments of the Movers of those two Resolutions. My friend the Honourable Mr. Crerar has to-day informed the Council that a pledge was given by Government that the Government would bring forward a Bill for the repeal of this measure. But my friend Mr. Crerar did not tell this Council that the opinions which the Government obtained were in the main adverse to the repeal of this Act. The Bengal Government gave its half-hearted support: the Madras Government agreed to the repeal: but every other Provincial Government set its face against the repeal and advised the Government of India not to dispense with this measure. I should have strongly opposed this Bill to-day but for the fact that the operation of this Bill has been postponed to 1926 and an opportunity has been given to provincial Governments to adjust their labour conditions during the interval and pass such local Bills as may be required. Sir, I do not for a moment deny that in some parts of this country there have been abuses under this Statute. I would not for a moment deny that some unscrupulous employers have exacted unlawful arrests and have deceived Courts, and in order to carry on their work have even violated the provisions of this Act. But at the same time I cannot minimise the importance of this Act and the great service it has rendered to this country during the 66 years of its existence. Originally this Bill was framed at the instance of the Calcutta Trades Association and subsequently extended to various parts of the country. India is now industrially making rapid progress. Labour is required from all parts of the country, from distant lands, to migrate to industrial centres for the purpose of carrying on the ordinary work. You are aware, Sir, that employers of labour do not obtain their labour without undergoing much risk, without making large advances. If they make these large advances for the purpose of carrying on the every-day work in industrial centres and to provide maintenance for a large body of people, it is equally right that there should be some protection from Government for the risks which industrial enterprise undertakes. The original ideal of the Act of 1859

was only to make penal those violations of agreements which were deliberately, fraudulently and intentionally committed. The Courts sometimes in their zeal in interpreting the Statute have dispensed with the necessity of requiring independent proof and have accepted the mere fact of an advance having been made and of the subsequent bolting of the workman as evidence of guilt and have convicted the parties. Sir, I am very sorry at any rate to observe that in this Bill Government have attempted also to include sections 490 and 492 of the Indian Penal Code. In giving the reasons for asking for the repeal of these provisions, Government have stated that an opportunity has at the same time been taken of repealing sections 490 and 492 of Indian Penal Code which deal with cognate matters, as their repeal seems to be a logical development of the repeal of the Act of 1859. Logically is an exceedingly charming expression and is an ideal certainly to be coveted, but there has never been either logicity in the law or a consistency in the procedure of the Government of India. I submit that those provisions which are embodied in Chapter XIX of the Indian Penal Code were absolutely independent of the provisions contained in the Act of 1859. I admit that when the Penal Code was drafted by Lord Macaulay a year later, he might certainly have had knowledge of the provisions of the Act of 1859, but I firmly disbelieve that the mere existence of the Act of 1859 influenced him in drafting this Chapter XIX of the Penal Code. Sir, I can understand the anxiety of the Council, the anxiety of the people, to see that poor workmen are not oppressed that they are not unduly harassed. I can quite appreciate the anxiety of the Government to repeal these provisions and to destroy a most important weapon of protection which the Legislature gave. I shall give you two simple illustrations. Take, for instance, the case of an invalid who is sent home in charge of a nurse, who has received payment for her services in advance for the voyage. When the boat arrives at a certain place, the nurse leaves her employer because she has meanwhile obtained some better appointment. What becomes of her patient? Is there any justification for the repeal of such a salutary provision? Take for instance, the case of a person who has specially engaged a nurse or a party for the protection of a minor, to take him to England or to take him to any other place overseas. Suppose the party fails, and commits a breach of contract. Is there any justification for according that party any immunity from prosecution? You do not compare the criminality involved in a case like that with the criminality of the workman who has received wages, shuts up his work and leaves the service. Sir, it is an unfortunate piece of legislation. I will not oppose it because the Government is fulfilling its pledge, as Mr. Crerar has pointed out. The Secretary of State has unfortunately given his sanction to the repeal of this Act. The Government of India have agreed to it, and the Legislative Assembly has accorded its seal of approbation for the repeal of this measure. There is only one consideration which weighs with me in coming to the decision to support this Bill. We

have taken up a certain position in relation to the Colonies; our own Indian labour is being largely recruited in the various parts of the world; we are insisting on the Colonies abolishing the penal clauses connected with emigration in Labour, and that fact has heavily weighed with me in assenting to the repeal of this measure. But I hope the Local Governments in the short time at their disposal will frame suitable measures for affording some protection to industrial enterprises, while at the same time protecting the interests and and liberty of the workmen as a body. With these words, Sir, I support this Bill,

The Honourable Mr R. P. Karandikar: (Bombay: Non-Muhamadan): Sir, I had no intention of taking part in a debate on a small measure like this for really speaking no discussion was needed if there was assent on everybody's part. Even if it was a grumbling assent as it should be from capitalism, it would have been quite sufficient for the Bill to pass through this House. It is a matter of surprise, sometimes agreeable or otherwise, according as one has time at his disposal to listen to a debate of this kind, and I do trust that this House has enough of time really. It should be enough to point out for the safety of those who want to guard capitalism that capitalism is already guarded much more by the poverty of the people than by industrialism. Take for instance the Provident Fund Bill to lay down for the benefit of the fund the subscriber, the workmen, the people who are supported by industries. It can dictate terms and I say capitalists can dictate terms to labour and from that point of view if industrialism has to supply facts, over poor labour capitalism has the upper hand. The Act of 1859 is as old as myself and I have been at the Bar for nearly 40 years and more and I have never found many instances which appertain to the exercise of the enactment of 1859. It has not been of any use practically. Possibly there may have been a few here and there, and my Honourable friend on the left who belongs to the judicial bench will bear me out that there were very few cases indeed. Nothing is to be lost really by deleting a provision of law which stands for nothing, which is of no use practically. And as has been pointed out, sections 490 and 492 also have not been of any use really and there is no point in retaining them. Then if they in a manner affect the spirit of the people which was encouraging labour, I know now-a-days capitalism and labour do not wish to agree so much as perhaps in the palmy days of capitalism when it enabled labour to come forward and help itself. But now labour is getting the upper hand and consequently capitalism fears that the whole thing may go to labour. I find that ideas of moderation must change. Having lived sufficiently long I have been marking the march of events and the spirit of moderation. It is no use of one House pointing out to the other House that the spirit of moderation is wanting in some place. We lay ourselves open to the same charge and I do not like the idea at all. I think it would be much better and to the advantage of us all if we refrained

from passing any comment on what takes place in another House by reason of the moderation or otherwise of particular Members. I wholeheartedly support this motion.

The Honourable the PRESIDENT: The question is:

"That the Bill to repeal certain enactments whereby breaches of contract by labourers are made punishable under the criminal law, as passed by the Legislative Assembly, be taken into consideration."

The motion was adopted.

The Honorable Mr. J. CRERAR: Sir, I move.

"That the Bill as passed by the Legislative Assembly, be passed."

In doing so I should like in a very few words to thank the Honorable Members who have spoken in the debate for the support which they have given to this Bill. I think perhaps my thanks are specially due to my Honorable and learned friend Sir Maneckji Dadabhoy. The Honorable Saiyid Raza Ali and the Honorable Mr. Karandikar spoke with evident warmth and conviction. The terms of the benediction which my learned friend from Nagpur gave the Bill were of so extremely frigid a character in themselves that I do feel that some acknowledgement is due from me of the fact that he should ultimately or initially have made up his mind to support this measure. I only desire to dissent very strongly from one observation which the Honourable Sir Maneckji Dadabhoy made. He suggested that the Government of India had undertaken this measure in weak compliance with blandishments or perhaps intimidation, either in another place or from higher authority. I must entirely repudiate any suggestion of the kind. The Government of India after having carefully considered all the opinions which were obtained—and I frankly admit that the majority of those opinions were adverse to this measure—the Government of India having considered all those opinions and having taken a survey of the whole situation as it presented itself to them, deliberately decided to proceed with this measure. And I think perhaps my Honourable and learned friend, after having taken a survey of the whole situation has come to the same conclusion on equally unimpeachable grounds. I move, Sir, that the Bill as passed by the Legislative Assembly, be passed.

The Honourable Sir MANECKJI DADABHOY (Central Provinces:—General.)

Sir, one or two observations that have fallen from my Honourable friend behind compel me at this stage to occupy the time

of this Council only for a few minutes. First, let me assure my Honourable friend Mr. Crerar that, when I said the Government in a moment of righteous weakness succumbed to blandishments, I did not intend at all to say that the Government gave way either to intimidation or to pressure. I used the expression generally in connection with the spirit of the times, and particularly that displayed in the Assembly, and I meant that the Government thought that the Bill as it existed on the Statute-book was either an anachronism or an anomaly. As regards the observations made by my friend the Honourable Mr. Karandikar that no Member of this House ought to make any reflections against the other House I entirely agree. But I am afraid my Honourable friend has either entirely misunderstood my remarks or inadvertently misinterpreted them. When I referred to the spirit which is now prevalent, a spirit destructive of industrial progress, I did not make any reference and I did not intend to make any reference to individual Members of the Assembly, but I certainly spoke of the general spirit of opposition to capitalism which is now beginning to show there. As regards my Hon. friend Mr. Saiyid Raza Ali's baseless criticisms I need only say that I have the misfortune as a rule to disagree with him. I am extremely sorry to notice that he has in a great measure misinterpreted me in the Council to-day. I do not wish to occupy the time of the Council. Honourable Members have heard me and the line which I took up in connection with this measure, and I leave Honourable Members to form their own judgement.

The Honourable the PRESIDENT. The question is:

That the Bill to repeal certain enactments whereby breaches of contract by labourers are made punishable under the criminal law, as passed by the Legislative Assembly, be passed.

The motion was adopted.

SHEVAROY PLANTERS' ASSOCIATION.

Proceedings of an Extraordinary General Meeting of the Shevaroey Planters' Association (Incor). held at the Victoria Rooms Yercaud, on Friday the 30th of January, 1925 at 2 p. m.

Members Present.—Mrs V. A. Lechler, Capt E. H. A. Travers Drapes (Chairman) Rev. Fr M. Capelle, Messrs W. I. A. Lechler, A. R. D'Silva, W. Rahm, W. A. Rahm, N. M. Hight, C. L. Hight, C. D. Ryle, and Mr. V. L. Travers Drapes (Hon. Secretary).

Prior to commencing the business of the meeting the Chairman said :—

Ladies and Gentlemen,

In opening this Meeting it is my painful duty to place on record the deep sense of loss that I am sure we have all felt at the sudden and unexpected death of our old friend Mr. D. S. Robinson. I am sure you will agree with me when I say that though his health did not permit him to take an active part in our social activities yet he was a living example of all that a true man and friend could be, always willing to help others, and incapable of anything but the kindest thoughts towards his fellow men. We can ill spare such men.

I propose that this Association do offer to the relatives of the late Mr. D. S. Robinson, their sincere sympathies and condolence in their loss.

Passed Standing.

Agenda.

1. Notice calling the meeting was taken as read.
2. Read and confirmed Proceedings of the E. G. M. dated 8th August 1924 and Special General Meeting dated 3rd October, 1924

U. P. A. S. I. Annal General Meeting :—(a) To receive Bangalore Delegate's Report as follows:—

Ladies and Gentlemen,

As your Delegate I attended the postponed Annual General Meeting of the U. P. A. S. I. held at Bangalore on the 20th, 21st, 22nd and 23rd October, 1924. As all the Resolutions passed at that meeting have appeared in the Planters' Chronicle it will be unnecessary to deal in this report with more than actually concerns us but I shall be glad to answer any questions to the best of my ability.

Labour Department. The Scheme brought forward by the Annamallais Assoc. was amended by a Sub-committee which recommended the omission of the Labour Board and that the Management and control of the Department be in the hands of Control Committees subject to general supervision by the Executive Committee of the U. P. A. S. I. No other change of any importance was recommended and with the above alteration the scheme was adopted.

Scientific Department. The amendment of the Articles of Association for the purpose of collecting the cess to cover the cost of this Depart. was accepted and the general opinion is that it will not exceed as. 2 per cultivated acre to which this Association had pledged itself. All the other Associations interested in Coffee support

the proposed new Experimental Station in Mysore. In addition to this we have the support of the Indian Coffee Planters of Mysore, and I think you will all agree with me when I say that it is desirable to get all owners of Coffee Estates, whether they belong to an Association or not, to pay their share of the expenses. With this end in view I moved the following Resolution which was kindly seconded by Mr. S. P. Raymond of Coorg, and carried "That this Association approach the Government of Madras and the Administration of Coorg to introduce a compulsory Cess on Coffee on the same lines as in Mysore, if and when the Mysore Council introduce such a Cess". The consensus of opinion amongst both the European and Indian Planters of other Districts is that the Cess should be on cultivated area only and this was impressed upon Dr. Coleman when he brought the subject before the Indian Planters of Mysore as well as at the Bangalore Meeting. As you are aware the U. P. A. S. I. has sanctioned the immediate payment of Rs. 5000 so that the Experimental Station can be opened without delay and be ready for the next Planting season and as you have agreed to tax yourselves, whether the Cess is made compulsory or not, you will be asked to meet this demand in the current year.

Planters' Chronicle I took the opportunity of suggesting that we might be given occasional extracts from the Journals issued by the Rothamstead Experimental Farm and the Editor kindly promised to make a note of this. Several other suggestions were made for improving your paper and a Resolution was passed that Hon. Secretaries of Associations should be asked to arrange for Monthly notes from Districts for publication. Your Hon. Secretary has not been lethargic in the matter and you will have seen that the first Notes from these Hills appeared in the Chronicle of the 13th December last. I would ask you to discuss this subject afterwards, to see if we can adopt any method of making these notes as interesting as possible.

Provident Fund. There seems to be less interest in this subject than when it was first mooted and many Associations are against it. The Chairman expressed the opinion that if it is going to be a success it will have to be compulsory. The Executive Committee has been asked to draw up a scheme and till they do so nothing further can be done in this matter.

Empire Planters' Club. A proposal has been brought forward to start a Club in London with probable subscriptions of 4 to 5 guineas for Town 2 to 4 guineas for Country and one guinea for foreign Membership. The Entrance Fee is to be kept as low as possible but this will probably depend upon the support the Club receives. Such a Club will no doubt be of benefit to retired Planters and those at Home on leave.

Political Representation. Resolutions were passed to the effect that the U. P. A. S. I. agrees to the employment of a whole time Politician to lead the European non-official party in the Madras Legislative Council in co-operation with the Madras Chamber of Commerce, the Madras Trades Association and others and that the sum of Rs. 1000 per mensem be subscribed towards his salary. My instructions upon this subject were to vote in favour of the proposal provided the Planting Member did not have to vacate his seat on the Council. Some of the other Associations adopted the same attitude and we were assured that there was no question of the Planting Member vacating his seat.

Labour Laws. I asked if any information was available as to whether any Legislation was contemplated to take the place of Act. XIII of 1859 and was informed that the Law Department are considering whether they should bring in a local Act for this Presidency on the lines of Act I of 1903 with the Penal Clauses cut out.

Wemby Exhibition. It is universally agreed that Coffee made a very poor show and that the exhibits and photos were tucked away in corners where nobody could find them so that we have gained practically nothing from what has been done. As the exhibition is to be open for another year the Coorg Association brought forward the following Resolution which was seconded by me and carried—"That in the event of the Wemby Exhibition being held next year the U. P. A. S. I. Executive approach Messrs. Lyons & Co., with a view to arranging for the roasting and sale of South Indian Coffee in the cup and for the distribution of photos and advertisements." As to the ways and means of carrying out the latter part of this Resolution, I do not think anything can be done till we hear what Messrs. Lyons & Co., are prepared to do and for the present we are committed to nothing more than approaching them on the subject. Your Hon. Secretary will read to you later on the correspondence that has ensued on this subject.

General Committee. I attended Meetings held on the 20th and 24th Oct. last. Mr. Lake has been elected for Coffee to the Executive Committee and Mr. Tipping as Member in waiting.

The Chairman for the coming year is Mr. J. A. Gwynne.

In conclusion I have to acknowledge with thanks the valuable help given to me by Mr. W. A. Rahm who attended the Meeting as our second Representative and devoted every morning and afternoon of his short holiday in Bangalore, during it's Session, to your interests. I have also to thank you, Ladies and Gentlemen once again for the honour you have conferred upon me in sending me as your Delegate.

Proposed by Mr. W. Rahm, and seconded by Mr. C. D. Ryle
 "That a hearty vote of thanks be accorded our Delegate and his
 Report be published in the Planters' Chronicle".

Carried.

(b) Delegates Expenses.

Proposed by Mr. C. D. Ryle and seconded by Mr. W. Rahm,
 "That the S. P. A. do pay the sum of Rs. 200 to the Delegate for his
 expenses to the Bangalore U. P. A, S. I. Meeting."

Carried.

4. *Sandaiwood.* Read and recorded letter No. R. Dis. 964 C/D,
 24 dated 21st November 1925 from Deputy Tahsildar, Yercaud,
 notifying that all Sandalwood trees on lands applied for assignment
 will be reserved to Government.

5. *British Empire Exhibition.* Read letter from Mr. Waddington
 No. 6336 dated 13th December 1924 enclosing copy of letter to H on
 Secretary, Coog Planters' Association dated 7th December 1924 ;
 also No. 6198 dated 22nd December 1924 and S.P.A. reply No. 215/25
 dated 8th January, 1925.

Resolved " That decision on the question of advertising South
 Indian Coffee at the Wembley Exhibition is not possible till a reply
 is received from Messrs. Lyons & Co., London."

Correspondence :—

(1) Manure Depot at Salem and Kadiampatti.

Read and recorded the following letters :—From S. P. A. No.
 155/24, dated 6th October 1924 to Agricultural Demonstrator, Salem.

Letters from Agricultural Demonstrator Nos. 622 dated 17th
 November 1924.

No. 671 dated 27-11-24 and 622 dated 15-1-25.

S. P. A. reply to above No. 239/25 dated 28-1-25.

2. *Planters' Waiting Room at Deputy Tahsildar's Office.* Read
 and recorded the following letters.

S. P. A. Letter No. 158/24 dated 6th Oct., 1924.

Deputy Tahsildar's reply dated 11-10-24.

S. P. A. Letter No. 193/24 dated 5th Nov. 1924.

Deputy Tahsildar's reply thereto No. L. Dis 151 mis 24 dated 12-11-24.

The Hon. Secretary was instructed to write to the Collector, Salem and ascertain whether the room adjacent to the Assistant Registrar's Office was built exclusively for the use of *Planters* or for the general public, and also as to whether there is any furniture especially allotted for the room.

3. *Breach of Contract Cases.* Read and recorded the following:-

S. P. A. Letter No. 160/24 dated 6th Oct. 1924 and deputy Tahsildar's reply thereto No. 153 mis dated 9-10-24 re: cases pending in his court.

4. A *Repeal of Act. XIII* - Read and recorded the following:-

Letter No. 7672 dated 22-1-25 from Secretary U. P. A. S. I.

S. P. A. Letter No. 237/25 dated 26th January, 1925 and the U. P. A. S. I.'s reply No. 7745 dated 28-1-25.

The Hon. Secretary was thanked for obtaining the information contained in the above letters.

4. *Cinchona Planting.* Read U. P. A. S. I. Letter No. 5400 dated 14-11-24 and S. P. A. reply No. 213/25 dated 8-1-25.

Resolved "That in the opinion of this Association, there is no objection to Government undertaking cultivation of *Cinchona* provided that if it is extended to these Hills, they will conform to local rates for labour and contracts".

5. *U. P. A. S. I Sports Club.* Read Letter No. Nil dated 5th Nov. 1924 from President U. P. A. S. I. Sports Club, Ooty, and the enclosed Rules dated 4th Nov. 1924

The Hon. Secretary was instructed to reply that this Association considers this matter should be left to the individual wishes of members, to whom the Club Rules have been circulated.

6. *European Association.* Read and recorded the following:—

Letter No. 6945 dated 26th Dec, 1924 from Secretary U. P. A. S. I.

S. P. A. Letter No. 216/25 dated 8th Jan. 1925 in reply thereto Letter No. Nil dated 19th January, 1925 from Hon. Secretary European Association, Madras Branch enclosing 30 Banker's order forms for distribution to S. P. A. Members.

The Hon. Secretary was instructed to distribute same.

7. *Holder Sprayers*. Read copy of letter from Director of Agriculture, Mysore to the Director of Agriculture, Madras R. O. C. No. 740 H. C. 145-4 of 24/25 dated 22nd December 1924.

Resolved "That the Hon. Secretary be and is hereby instructed to request the payment before the end of February, 1925 of a Deposit of Rs. 30 per Sprayer from members who have ordered them; so as to enable him to meet the demand against Bills of Lading when presented".

Read and recorded the following:-

1. Two letters from Dy. Tahsildar Yercaud No 3 PDL 24 dated 4-11-24 and No 3 PDL dated 3-1-25 re: arrears of Land Khist

2. Two Circular letters from Secretary U.P.A.S.I. dated 31st December 1924 re: "Indian Tea Association Publications" and "Empire Planters' Club" which have been circulated to S. P. A. members for reply.

3. Letter No. 5071 dated 5th November 1924 from Secretary U.P.A.S.I. embodying copy of letter from M. J. Patoir, Amsterdam re: Coffee Agency.

4. Letter No. 2 H. G. dated 19th November 1924 from Messrs. Alexander & Co., London on same subject.

5. S. P. A. Letter No. 222/25 dated 13th January, 1925 to Director of Agriculture Nairobi South Africa, re: "Annual Report of the Department of Agriculture".

6. *Freights*. Read S. P. A. letter No 224/25 dated 13-1-1925 to Agent, South Indian Railway, Trichy for free wharfage on goods at destination.

Out Agency. Read S. P. A. letter No. 225/25 dated 13-1-1925 to the Agent South Indian Railway, Co., Trichy. re: opening an Out Agency in Yercaud.

With a vote of thanks to the Chair the meeting terminated.

E. H. A. TRAVERS DRAPES,
Chairman.

V. L. TRAVERS DRAPES,
Hon. Secretary.

PLANTER'S WEEK.

Inter-District Tennis Tournament.

To date, the following Districts have entered for the above tournament:—

Annamallais.
Kanan Devans.
Nilgiris.
Nilgiri-Wynaad.
Wynaad.

Will P. A. Secretaries who have not yet sent in their entries kindly do so as early as possible. The names of the players are not necessary at present.

STUART HAWKINS.

Nettigudi Estate,
Mattupatti P. O.
via Periakulam.

CUMBLIES.

At the request of the Planting Member we publish the following communication received from the Commissioner of Labour, Madras:-

"I have the honour to state that the Settlement at Siddhapuram managed by Government produces some good cumblies. I shall be greatly obliged if you will please let me know whether these cumblies will be of use to the planters. The prices of these cumblies are from Rs. 4-12-0 to 5-8-0 excluding railway fare. If you wish to see the cumblies I shall be pleased to send you some cumblies."

EX-SOLDIERS.

The following communication has been received from the President of the District Soldiers' Committee, Madura:—

"There are 78 sepoys and sappers, 2 Lance Naicks, 4 Naicks, 1 Lance Havildar, 7 Havildars, 2 Subedars, 1 Jamedar and 6 clerks wishing to be employed.

Havildars, Subadars and Jamedars will be fit as Overseers. Sepoys, Lance Naicks and Naicks will be suitable as store and factory watchmen. Most of these men are little educated and belong to a poor class of farmers and coolies. The six ex-military clerks are of the High School grade.

I have not consulted each of these men about the pay that they would wish to get, but I expect that they would be satisfied with the pay that you usually allow to such employees."

ESTIMATED TEA CROP 1924-25.

From figures supplied to the Office of the U. P. A. S. I. it appears that the Tea Crop from Southern India for the year 1st April 1924 to 31st March 1925 will be approximately forty six and a half millions pounds, made up as follows.—

The Anamalais	...	...	5,270,354	lbs.
Coorg	...	...	113,853	"
Wynaad	...	...	4,987,231	"
Nilgiris	...	...	8,595,092	"
Travancore	...	...	27,278,612	"

Total ... 46,245,142 pounds

In addition to which figures for green tea made during the same period are 249,508 lbs.

**THE UNITED PLANTERS' ASSOCIATION
OF SOUTHERN INDIA.**

(INCORPORATED)

NOTICE IS HEREBY GIVEN that the EXTRAORDINARY GENERAL MEETING of the above-named Association to be held on the 25th March, 1925, for the purpose of considering and (if thought fit) passing a Resolution to amend the Articles of Association will take place at OOTACAMUND commencing at 11 o'clock in the fore-noon and not at Madras, as stated in Notice, dated 22nd December, 1924.

By Order of the Executive Committee,

H. WADDINGTON,

15th February, 1925.

Secretary.

NOTICE IS HEREBY GIVEN that a MEETING of the GENERAL COMMITTEE of the above-named Association will be held at Ootacamund, on the 25th March, 1925, commencing at 11-30 o'clock in the forenoon.

Agenda.

1. To confirm the proceedings of the last meeting.
2. The Budget 1925-1926.
3. Rules of the Upasi Buying Agency.
4. Labour Department, The Anamalais Scheme.
5. Upasi Sports Club Rules.
6. Upasi Employees Provident Fund.

By order of the Executive Committee.

H. WADDINGTON,

Secretary.

Budget.—Copies of the Budget as accepted by the Executive Committee at a Meeting held on 26th January 1925, have been circulated to all Members of the General Committee.

Rules of Buying Agency.—The Executive Committee will ask that the following additions to the Rules be confirmed:—

(1) That the following words be added to rule IV:—"and all renewals shall date from the expiry of the previous ticket, in no case shall any allowance be made for absence on leave or any ticket be issued for a period of less than twelve months."

(2) That a new Rule be added as follows:—"In no case shall the Secretary act as agent of a member in any business connected with the Agency."

Anamalais Scheme Labour Department.—The Central Travancore Planters' Association give notice that its representatives will move that the following alterations be made in the Report of the Select Committee as adopted at the last annual Meeting.

In para 5.—In the case of Tea the subsidy shall be a minimum of 10½ annas per acre.

In para 8.—That, "subject to the managing powers conferred on the Executive Committee by the Articles of Association" be substituted for, "subject to general supervision, etc."

In para 9.—That Control Committees shall consist of three active members and three members in waiting.

In para 12.—That power of the Control Committees shall be subject to the Executive Committee as in para 8.

In para 13.—That "after the Budget has been approved by the the General Committee" shall be substituted for "after the budget has been passed..."

In para 27.—That the word "entirely" shall be omitted.

In para 30.—The whole para to be omitted as unnecessary.

U. P. A. S. I. SPORTS CLUB.**General Meeting.****ALTERATION TO RULE 5.**

The Committee of the U. P. A. S. I. Sports Club have unanimously agreed to amend Rule 5, to read :—

5. *Management* : "The affairs of the Club shall be administrated by a President and Committee of four, being members of the Club, who shall be elected annually at a General Meeting of the Club to be held during Planters' Week and shall exercise absolute control over the affairs of the club, except as otherwise provided in these Rules."

This amendment received the approval of the U. P. A. S. I. Executive Committee at its Meeting held in Madras on the 26th and 27th January 1925 and (under Rule 6) will be put before the General Committee of the U. P. A. S. I. for its sanction at the next Meeting, to be held in Ootacamund on 25th of March.

In anticipation of the General Committee's sanction, a General Meeting of the Sports Club will be held at the Masonic Hall, Ootacamund on Saturday March the 29th at 10-15 a. m.

Agenda.

- (1) To elect a President and a Committee for the year commencing the 1st of April 1925.
- (2) To consider the financial position of the club.
- (3) General.

Ootacamund, }
26th February 1925, }

N. C. WHITTON,
President,
U. P. A. S. I. Sports Club.

LETTERS' TO THE EDITOR.

(The Planters' Chronicle is not responsible for the opinions of its correspondence).

DEAR SIR,

Accomodation at Ooty.

I can most strongly endorse the remarks of your correspondent on pages 107 and 108 of last weeks Planters' Chronicle: We had

thought of spending this summer at the Queen of Hill stations and went there to try and find a house, but after inspecting all that seemed available, found scarcely one which was fit for decent European habitation.

Rents were unjustifiably high and ; at any rate the native owned houses, which were in the majority, were unkempt, dilapidated and unclean : meagrely and sparsely furnished sordidly equipped and maintained. We therefore decided against the place and booked passages home : no doubt other people have done the same in the past and no doubt will continue to do so, until such time as Ooty starts " putting its house in order."

Yours faithfully,
" DISILLUSIONED ".

DEAR SIR,

Transport of Manures.

The following may be of interest. Out of 8½ tons neem poonac I recently received over 2 tons short. The cartman was brought to book and practically admitted it was stolen but puts the blame on his men during his absence. He says there is a regular traffic in manure, mostly on the Mysore side of the frontier and there is no difficulty in getting rid of it "through road agents" to native planters, cartmen usually receiving Rs. 2/- or Rs. 3/- a bag. Verb sap. Many Estates do not take the trouble to weigh sample bags on arrival and this is a direct encouragement to theft. I did not myself until several years ago when I got the surprise of my life.

Yours faithfully,
L. NEWCOME.

U. P. A. S. I. SPORTS CLUB.

We have received from Mr. Whitton a letter appreciating our having given space to so many announcements relating to Planters' Week at Ootacamund. We are afraid we have not been able to publish some of the announcements in consecutive weeks as desired by the organisers, but we propose to issue, with the "*Planters' Chronicle*" of 14th March, a supplement comprising all the notices which have appeared. This will include, in addition to the general programme, the notices concerning golf, tennis, etc., which visitors to Ooty will no doubt appreciate as, being in handy form, the pamphlet can be carried in the pocket and will form a ready reference to the various events.

The Planters' Chronicle.

Recognised as the Official Organ of the U. P. A. S. I., Incorporated

Secretary's Registered Telegraphic Address "UPASI," MADRAS.

Mr. EDWIN VINCENT.—Managing Editor, Coimbatore,

Telegraphic Address:—"CHRONICLE," Coimbatore.

VOL. XX No. 10.]

MARCH, 7TH 1925.

[PRICE As 8.]

CONTENTS.

	PAGE.		PAGE.
The Planting Member of Council	... 151	Food Problems with Special Reference to India	... 139
Law (Legislative) Department	... 152	Planters' Week	... 162
Notice	... 152	Letters to the Editor	... 162
Monthly Market Notes By "Eothen"	... 153	The Shoot	... 163
District notes	... 157	U.P.A.S.I. Statistics. Shipment of South Indian Produce during Jan. '25	... 154
Coffee Prices	... 158		

BY CABLE—LONDON, 6th March, 1925.

168s/—per cwt Market Quiet.

PRICE OF "A" COFFEE.

THE PLANTING MEMBER OF COUNCIL.

We notice that in the announcements by the Madras papers of the nomination date for election of a member of council in the place of Mr. C. R. T. Congreve who has resigned, the date of scrutiny of the nomination papers, is given as 19th March. The correct date is 17th March and we call the attention of planters to the notices published overleaf regarding this election.

We are able to state that it is understood the Executive Committee U. P. A. S. I. have come to an arrangement with Mr. E. G. Windle, of Hampton Coonoor, who has consented to be nominated at the vacant seat.

LAW (LEGISLATIVE) DEPARTMENT.

G. O. No. 91.

Dated 2nd March, 1925.

ORDER.

Whereas a vacancy has occurred among the elected members of the Madras Legislative Council by the acceptance of the resignation of Mr. Cecil Ralph Townshend Congreve, a member elected to the said Council by the Madras Planters' Constituency.

Now therefore in pursuance of sub rule (1) of rule 26 of the Madras Electoral Rules, His Excellency the Governor calls upon the Madras Planters Constituency of the Madras Legislative Council to elect in accordance with the said rules a duly qualified person for the purpose of filling the said vacancy on or before the 28th April 1925.

2. The Secretary United Planters' Association of Southern India is requested to take the necessary action under the regulations for the conduct of elections for the Madras Legislative Council. He should forward in due course a copy of the final list of candidates.

(By order of His Excellency the Governor.)

(Sd.) V. T. KRISHNAMA ACHARIYA.
Secretary to Government.

NOTICE.

Whereas the Madras Planters' constituency of the Madras Legislative Council has been called upon by notification to elect a member on or before the 28th April 1925, I, H. Waddington Esq., the Returning Officer of the said constituency, do hereby give the following:—

Public Notice.

- (i) The number of persons to be elected is one.
- (ii) Nomination papers may be delivered to the undersigned at the United Planters' Association of Southern India Office, Madras, or if he is unavoidably prevented from receiving the same to the Acting Secretary of the United Planters' Association of Southern India at the same office. They should be presented between 11 a.m. and 3 p. m. on or before 16th March 1925.
- (iii) Forms of nomination paper may be obtained at the offices of the persons above mentioned between the hours of 11 a. m. and 3 p. m. from 5th March to 16th March 1925.

(iv) The nomination papers will be taken up for scrutiny at 11 a. m. on 17th March 1925 in the United Planters' Association of Southern India Office, Madras.

(v) In the event of the election being contested, the poll will take place on the 20th April 1925, between the hours of 11 a. m. and 3 p. m.

H. WADDINGTON,
*Returning Officer of the Madras,
Planters' Constituency.*

4th March 1925.

MONTHLY MARKET NOTES BY "EOTHEN"

ASIA

London, 12th February 1925.

Tea. Whether due to the activities of the "stunt" press or to the enquiries made by the Food Commission, the tea market has certainly suffered a severe setback during the past month. But it must be remembered that the statistical position is by no means as strong as it was in late October last year. As regards stocks, imports for the eight months to 31st January exceeded deliveries for London alone by over 77 million pounds.

The Indian Tea Association took the bull by the horns and restricted offerings at the auctions during the past three weeks, and this to some extent—though not much—saved prices from tumbling too rapidly. It is expected that this week's offerings will prove the peak of supplies, and thenceforward the quantity will be much lower, so that an improvement in prices is looked for presently. This view is by no means general, however.

Season for season the Northern India sales now total 1,041,219 packages at 1s. 10. 10d., against 1,027,721 at 1/6. 99d. a good 3d. per pound higher on a heavier bulk.

This week's auctions began very unfavourably and there were a large number of withdrawals of Indian teas on Monday. The exceedingly poor quality of the teas offered was partially responsible for this, quality being even poorer than is usual at this stage of the season. As compared with last week there was a general decline of up to at least 1½d. per lb., while commonest teas marked often not higher than 1/4d. The following are the averages made up to the end of last week, i. e., not including this week's auctions:—

	Week Ended Feb. 6. 1925.	Current Week 1924.	Jan. 1 to. Date 1925.	Jan. to. Date. 1924.
Northern India	... 1/7. 13d.	1/5. 88d.	1/8. 38d.	1/5. 86d.
Southern India	... 1/6. 91d.	1/5. 83d.	1/8. 15d.	1/6. 12d.
Ceylon	... 1/8. 22d.	1/7. 66d.	1/9. 42d.	1/7. 68d.
Java	... 1/1. 50d.	1/3. 25d.	1/3. 73d.	1/3. 29d.

Even with the setback which has occurred it will be noted that the Southern Indian average is 2d. higher than at the same date last year, the Northern India averages being 2½d up. It should be noted that the demand is still good for the best liquoring teas, and in fact for some weeks past the chief interest of buyers has been centred on quality teas. The market is now suffering from the bad influence of those gardens which plucked "anything and everything" towards the end of last year in the hope of getting their share of the high prices which were then being obtained by all classes of teas.

One of the events of the month was the request made by Sir Auckland Geddes, as chairman of the Food Commission, that the Cooperative Wholesale Society should furnish him with a confidential statement of the Society's operations in the tea market. The rumour that the C. W. S. was responsible for the rise in tea prices in November-December had been largely circulated, but it has now been scotched by Sir Auckland Geddes' formal statement that the Society has furnished him with the confidential information asked for and that he is satisfied that it has only purchased tea for its own legitimate requirements. The Society has also issued a statement disposing of the rumours and alleging that there is a movement afoot among certain buyers to alter conditions of public sale and to introduce buying restrictions, which if successful would make what is now an open public auction a close preserve. This movement the society will oppose to the full extent of its power. It states that the growers have now become alarmed at the extent to which forward selling has been carried on and are urging that such sales be stopped for the future welfare of the tea trade.

It would be stupid, with stocks at their present level, to forecast an improvement in prices just yet. It may come within two or three months, but the market is in a bad way just now and likely to remain so for some weeks.

The argument that the heavy stocks are explained by last season's crop being shipped earlier from the East hardly bears examination. The Northern Indian crop to the end of December 1924 was 326½ million lbs. compared with 327 million lbs. in 1923. Shipments from Northern India from April 1st to December 31st, 1924, totalled 272½ million lbs. against 271 millions in the corresponding 1923 period. There is not much evidence in these figures to support the earlier shipment argument.

Rubber Market. From the point of view of the gambler, the conditions on Saturday, January 31st, left little to be desired. After staying around 1/5½ all the week, the closing price on Saturday, the last day of the restriction quarter only needed to be the same, 1/5½ d. in order to make the quarter's average eighteen pence, thus releasing another 10% of standard production under the restriction scheme. For the purposes of the scheme, however, the price of smoked sheet closed at 1/5 d. on Saturday at 12 noon and this was the official

"fixing" for the day. The average price for the restriction quarter therefore was officially registered at 1/5 9983 d., the issue being in doubt until within five minutes of the closing of the market. Once the price was fixed at 1/5 d. however, a few speculators between 12 noon and 1 o'clock forced it up to 1/5½ d., but this of course was of no use for restriction purposes. It was therefore announced by the Colonial Office later on in the day that the increase in the exportable quota of standard production for Malaya and Ceylon would be only 5% for the ensuing quarter.

In Singapore the announcement was received with surprise as the local statisticians had worked out the average price as exceeding 1/6 d. for the quarter. This was probably due to a misapprehension as to the method of calculation, for the official average is not based on the monthly figures but on the buyers' price for smoked sheet ruling on each working day during the quarter.

The producing companies, at least those whose offices are in London, appear distinctly disappointed that the 10% increase was not obtained. One can sympathise with them, for it is exceedingly annoying to go on presenting the Dutch with all the plums of the rubber market as we are now doing. When the production figures of 1924 are considered it is impossible to overlook the startling fact that British companies now produce only about 54% of the World's rubber as compared with their former production of over 70%. The Dutch have taken full advantage of the Stevenson Restriction Scheme to build up, as the *London Times* predicted over two years ago, "world markets of ever increasing importance" at the expense of the British.

Opinions in Mincing Lane differ as to whether the market was "rigged" or not. One thing patently emerges and that is, that America could have ensured the 1-6d. average being obtained by placing a few buying orders during the last week of the restriction quarter. America now professes to be annoyed that the price was "wangled" below 1-6d. and threatens to boycott the London market as far as possible, obtaining most of her supplies from Singapore. This may be only market talk, but it seems absurd if the American buyers really cared at all whether the increase were 5% or 10% that they did not take the necessary steps during January to make perfectly certain that the 1-6d. average was ensured. In the opinion of the writer America considers that she has a reasonably safe margin of stocks and can obtain all the rubber she wants without unduly affecting the London market. A lot of rubber has been sold forward c. i. f. New York from Singapore for delivery over the whole of 1925, and it is really difficult to say to what extent America will have to touch the London market during the next few months.

The London stocks of rubber have been substantially reduced during the month—during the last week in January the decrease amounted to no less than 1300 tons. Last week the reduction was

236 tons and the stocks now stand at 26,849 tons against 57,188 tons a year ago and 72,112 tons in 1923. It is curious that with the London stocks at this remarkably low figure the price is not high, but the market is notorious for the anomalies which from time to time it presents to the investor and speculator. The prevailing opinion seems to be that America will in time have to return to the London market, and the fact that the London stocks are practically in the hands of two dealers is another factor which does not make for stability in price. Nevertheless most of us still consider that those companies which sold forward portions of their crops for this year at 1/6d. per lb. have acted wisely. This is not a popular thing to say but despite the optimistic statements made by chairmen of various rubber companies the future of the rubber market, whether restriction lasts or not, is wropt in obscurity.

Coffee. The spot market rules quietly steady, despite the fact that supplies are fairly plentiful. The London stock of Brazilian is 12,064 bags against 14,351 bags a year ago, but Central American and "Other Kinds" together total 82,544 packages against 51,486 in 1924. During the past month all coffee of outstanding size and colour has been keenly competed for, and very high prices have been fetched in consequence. In the case of one very fine lot of Costa Rica a price of 212/- per cwt was obtained. Descriptions lacking colour and size met rather a quiet demand, and prices fell with these, especially African sorts, the bean of which is rather small this season.

According to Messrs. James Cook & Co.'s market report, meagre buying of Brazil coffee upon "c and f" terms does not appear to have made much impression upon Brazilian holders, who still ask 126/- per cwt. for described "superiors." The January statistics recently published are a little disappointing as the world's visible supply during that month declined only 128,000 bags against 247,000 bags in 1924. The total now stands at 5,256,000 bags. Deliveries in Europe and the States were smaller and arrival of "milds" heavier than generally anticipated, the former falling 375,000 bags short of those of January, 1924, and the latter exceeding last year's figure by 78,000 bags.

Including last year's carry forward, Santos should furnish this season 11,300,000 bags, of which 6,470,000 have already appeared in receipts.

Students of Government restriction may well study the remarkable achievements of Brazil in the matter of the Brazilian Coffee Defence Scheme. One American writer considers that 1924 will go down in history as far as coffee is concerned "as one of the most remarkable instances of what concentrated effort and intelligent leadership on the part of producers may accomplish even under the most trying circumstances. It almost sounds like a fairy tale that, during the last eighteen months, Brazil should have succeeded, not only in disposing of the Federal holdings of about 4,000,000 bags of coffee, and

then, confronted by the biggest crop ever grown, they should have been able to regulate supplies in such a way that prices should have risen 150 per cent." "Tropical Life" states that "Brazil has done, or means to do something to raise the export tax on her coffee in order to create a new defence fund. The idea is to raise the duty from 48 cts. to \$1.44 cts. a bag. The daily receipts in Santos have been reduced to 30,000 bags a day, equal to 4,500,000 bags to the end of the season. No wonder that values keep up."

DISTRICT NOTES.

High Range.

The Totes as a whole, in spite of the lack of rain, are looking fit and ready to respond to the first good showers; but crop is coming in very slowly at the moment. Light falls of a useless character were experienced once or twice during the past month and although, at times it looked as if we might have really useful quantities our hopes were not realised.

It is a wondrous thought this 'Rope Way Scheme' of ours, as a means of transport, as well as an Engineering feat, is to become an accomplished fact though not for a considerable period. We look forward to the day, when we as a community, shall feel ourselves the possessors of this great aerial connection, with the eastern bounds of our coasts.

The Route lies from the metropolis (Munnar) to our frontier at Top Station. The primary objects for the erection of this vast system, are the export and import of products and Materials, at a minimum expenditure, with the least possible risk of damage. While these of course are of first importance, a secondary suggestion has evidently been considered, and it now appears that a passenger car is to be attached, in which we can, if we so desire, take berths for stations on the route. We are probably to be provided with bridge tables and the usual necessities associated with the game; we are also to be provided, it is hoped, with other things, which those who know the Tuticorin crossing, will have found invaluable in days gone by.

We bemoan the loss of the Club gatherings, the condition of our would-be tennis courts, but we realise the difficulties encountered in their construction and hope that the latest device for their watering, will prove successful, for the good of all concerned. An attempt was recently made to save the good ship 'Social Enterprise', which stranded since 'The Flood' on the 'Home Sands'. Its inmates, although in correspondence with the outer world, complained, that owing to the condition of the lines of communication; they were unable to think of risking their lives and reputations endeavouring to reach the port. A dance was organised however, with the hope of piloting the ill-fated vessel across the 'Bar'. It was only a partial success, and although some took the leap and gained that Haven, we are sorry to report that the majority are still aground, in a very unenviable position.

COFFEE PRICES.

A Correspondent sends us the following cuttings from the home papers :—

An export duty of 5s. a bag (120lb.) which came into force in January on all coffee exported by the Sao Paulo (Brazil) Government will have the effect of adding still further to the recent enormous increase in the wholesale prices of coffee in London.

In the opinion of experts we are rapidly approaching a point when coffee will be too dear for general consumption in this country.

The rise in wholesale prices in a single year has been phenomenal. Although the British import duty was reduced last spring from 28s. to 14s. a cwt. the cost of coffee in shillings per cwt. sold in the British wholesale market at Mincing-lane has advanced as under.

		1924.	1925.
Kenya	...	105s. to 138s.	158s. to 168s.
Uganda	...	109s. to 136s.	145s. to 160s.
Costa Rica (best)	...	140s. to 159s.	164s. to 190s.
Do. (second)	...	125s. to 140s.	155s. to 164s.
Guatemala	...	115s. to 125s.	145s. to 158s.
Java	...	75s. to 78s.	110s. to 114s.
Brazil	...	78s. to 85s.	131s. to 136s.

The principal reason for this great advance may be found in the policy of restricting output adopted by the Government of the Sao Paulo Department of Brazil. This is the source of more than half the world's supply.

Dry U. S. Drinking it.

The world's consumption of coffee is rapidly advancing. In Great Britain the demand is practically stationary. But prohibition in the United States led to an enormous increase in coffee drinking in that country. Germany is also coming into the market again, and German agents in London demand almost exclusively the best and most expensive brands.

At 190s. a cwt. Costa Rica coffee—the quality principally in demand in Great Britain—costs wholesale 1s. 8½. a lb. To this must be added an average of 6d. a lb. for grinding and roasting, making the cost 2s. 2½d. a lb. to the wholesaler before adding anything for putting in packets and marketing.

Before the war Brazilian coffee, now 136s. a cwt. could be bought for 31s.

Another View.

"The great increases in the price of coffee during the past year," said a whole-sale trader to the *Sunday Pictorial* "were due to a variety of causes, the latest being the imposition of an export duty of 5s. a bag on coffee from Brazil.

" But the chief cause is a shortage of supplies due to bad crops for two years in succession. Then the Indian planters have almost entirely gone out of the business."

The new crops will be due in a month or so, he added, and the weight of supplies will be bound to reduce the price. "The retail price will certainly come down several pence a lb," he declared.

FOOD PROBLEMS WITH SPECIAL REFERENCE TO INDIA.

Lecturing before the Royal Society of Arts in London recently Colonel McCarrison formerly of the Indian Medical Service described some most interesting work done by him in this country on Nutritional problems. The lecturer classified foods under one or other of the following heads:—

- Seeds, tubers and roots.
- Fruit and green leafy vegetables.
- Muscle tissue of animals.
- Glandular organs of animals.
- Milk and milk products.

And showed the relative natures of each group as sources of heat and energy producers and suppliers of vitamins and minerals.

In his feeding experiments with birds and animals, Dr. McCarrison was able to show that the treatments to which certain common articles of food are subjected has a considerable influence on the nutritional value of these foods. This he ascribes to the removal of some of the more important vitamin ingredients and useful minerals.

In one series of these experiments a number of pigeons were selected of the same strain and from the same district. They were divided into lots of six, each lot being of exactly the same weight as the others. These pigeons were then fed with rice which had been treated in different ways in its preparation as human food. One lot of pigeons received untreated paddy in the husk, another received raw unpolished rice, another parboiled and husked grain, still another got husked and polished grain, and so on. The lot which received the polished grain lost weight steadily and all of them died before the experiment was finished. The lot receiving the raw unpolished rice made the greatest increase in weight and the lot receiving the whole paddy did next best,

Colonel McCarrison points out that not only does the feeding of grain of poor nutritional value result in a loss of weight, but it weakens the power of resistance to many diseases and if the animal be itself a carrier of disease germs such diseases are almost certain to develop. If not itself a carrier of disease germs, it is liable to infection from all round it,

Colonel Mc Carrison's investigations have shown that many diseases arise from a deficiency of some important ingredient of food and lead him to conclude that Beri-beri, which is a serious disease in certain parts of India, evidently arises from a deficiency of a certain class of vitamin. Goitre is due to a shortage of Iodine brought about by ingestion of fat or lime in excess. Diabetes, another very common complaint in this country, is probably due to an insufficient supply of vitamin B, as this disease occurs largely among a class of people who use polished rice as the main part of their food.

The lecturer showed that, while India possesses many races of people suffering from insufficient nutrition owing to the use of improper foods, she has also other races showing by their hardihood, fine physique, and longevity that their food is eminently suitable. He instances the Sikhs, who are a lacto-vegetarian people, and the inhabitants of the state of Hunza on the North West Frontier, who use a vegetarian and fruit diet varied with a little flesh, as exhibiting the finest types of humanity to be found throughout the whole world.

These investigations led Colonel Mc Carrison into other lines of thought which should be of great interest not only to India but throughout the agricultural world.

In conjunction with Dr. Norris, then of the Agricultural College, Coimbatore, feeding tests were conducted with grain (millet) grown on a series of experimental plots which had some years previously been laid out on the Coimbatore Farm with the primary object of testing the effect of various manures on crop yields.

Experiments with various manures had been carried out on that farm for a period of 15 years, one plot being manured with cattle manure, one with a complete mixture of artificials, others with various incomplete fertilizer mixtures and one received no manure of any kind throughout the fifteen years period.

The Millet grain from each of these plots was fed to equal lots of pigeons and it was found that the lot fed on grain from the unmanured plot made the smallest increase while the lot receiving the grain from the cattle manured plot showed the greatest increase in weight. The complete fertilizer mixture produced a grain having a feeding value greater than that produced by the unmanured plot but not quite equal to that produced on the plot manured with cattle manure.

Are we to assume from this that our crops obtain a vitamin in cattle manure that they do not obtain in mixed fertilizers and that these crops are then able to pass this vitamin on to the animal consuming them? Or alternatively, does the cattle manure enable the crops to produce a larger quantity of this vitamin or other vital ingredient than can be produced by the same crop when grown on a fertilizer mixture or without any manure?

Rightly enough the lecturer refused to dogmatize from the results of a single experiment but considered the results of sufficient interest to place them before the public.

There is a risk that the practical lessons of the Coimbatore experiment may be lost altogether from the emphasis which has been placed on the nutritional value of the grain produced by the cattle manure plot. These experiments were designed to test the relative values of various kinds of manures in increasing crop yields. Not only have the crops been increased considerably by certain manures both natural and artificial, but *the food grains produced by the use of manures both natural and artificial have shown considerably greater nutritional value than those grains produced on the unmanured plot.* This is of enormous importance as India grows the greatest proportion of her crops on lands which receive no manures of any kind.

India never has and never can have sufficient manure, if she relies on cattle alone for the needs of her agriculture, and must therefore call to her aid the supplies of fertilizing ingredients that all other agricultural peoples are now utilizing. In this country cattle manure finds so many other uses apart from its use as a fertilizer of the soil that the supply must remain dreadfully inadequate for food production. If her people are to be properly fed this can only be done through producing larger crops by the aid of fertilizers than can now be done by the use of cattle manure alone; by using this extra food to feed her cattle better and so producing a larger supply of the milk and milk products which Colonel McCarrison shows form so important a part of the dietary of a people. The larger numbers of cattle which can then be maintained, or what perhaps would be more advantageous for India, the better fed cattle which India will then have, will produce a much larger supply of cattle manure which can in turn be utilized for the production of still larger supplies of the higher grade food materials which Colonel McCarrison's feeding experiments have indicated are grown only by the aid of the natural cattle manure.

May we be permitted to hope that Dr. Norris, who collaborated with Colonel McCarrison in these experiments, will in his new sphere at the Bangalore Institute of Science, be able to undertake some further work along these lines. It should thus be possible either to confirm or refute conclusions which the lecturer admitted are still somewhat tentative. Are grains produced by the help of manures both natural and artificial, definitely of higher feeding value than grains produced without any manure? Is a natural manure such as a cattle manure more effective than mixed artificial manures in producing these higher grade food grains? If this is so, could a green crop be grown by the aid of artificials which would provide organic food materials for bacterial activity in the soil and so have the same effect as the natural cattle manure in producing grains of the maximum nutritional value?

PLANTERS' WEEK.

Inter-District Tennis Tournament.

To date, the following entries have been received for the above tournament :—

Annamallais.
Coorg.
Kanan Devans.
Nilgiris.
Nilgiri-Wynaad.
Peermade.
Wynaad.

Will P. A. Secretaries who have not yet sent in their entries kindly do so as early as possible. The names of the players are not necessary at present.

The tournament will be held on March 23rd and 24th on the Ootacamund Gymkhana Club courts (by kind permission), play starting at 10-30 a. m. each day.

The draw will take place at "Woodside" (Ootacamund Club) on Saturday, the 21st March at 7-30 p. m.

STUART HAWKINS,
Nettigudi Estate, Mattupatti P. O., Via Periakulam.

LETTERS' TO THE EDITOR.

(The Planters' Chronicle is not responsible for the opinions of its correspondents).

Adco and Coffee Pulp.

Sir,

I append below extracts from a letter received from Messrs Shaw Wallace & Co., of Calcutta, dealing with the manufacture of synthetic farmyard manure by treating Coffee Pulp with Adco. In completion of a series of tests with samples of 'Sippi,' they write as follows:—

"We find that the material is very easily saturated and that when treated with complete Adco mixture in the proportion of 1½ cwt. to 1 ton, breaks down rapidly into an excellent manure containing no less than 4.43% nitrogen in dry matter."

"From the above you will appreciate that in 'Sippi,' you have an excellent raw material which can be converted with little trouble into a valuable fertiliser containing all the virtues of Farmyard Manure and twice the amount of organic nitrogen."

Yours Faithfully,
G. S. I.

THE SHOOT.

Sing, muse, the fight that late o'er Mysore plains
Was fought against the watery winged tribe
E'en as the pygmies battled with the cranes.

But first the heroes feasted long and long
With wine of France, rose-red and golden too.
The concertina mingled with sweet song.

Then in the rosy dawn in cars sedate,
With glowing wheels the boys forgot to grease,
They rushed towards the lakes, not one was late.

First peradventure in his chaste sedan
To join the jocund hunt a warrior came.
Next, one whose lofty state proclaimed a man.

One in the nick of time with loud turmoil
And Alfred, centre of his universe,
One, wedded to the church, the devil to foil.

And thus the heroes wedded armed full well.
Towards the bounteous lakes, with shots and shouts
The air resounds, the winged tribe to fell.

But one there fell and legged it fast and long
Pursued by handy men o'er field and plain
And caught, the deafening paean is raised in song.

But then, alas, sore stricken by the heat
A young man fell, bright hope of all his friends,
The gallant colonel covered his retreat.

A scribe there was, new come to that fair plain
Blind like to Homer, like to Milton blind;
For right and left he shot, but missed again.

At length, replete with slaughter, not with meat
The heroes labour to fulfil the gap,
Lynx-eyed they view the quantities to eat.

Now flows the bottled beer, now gapes the tin.
Now rolls the sausage roll, each one enjoys
And sometimes whisky takes, and sometimes gin.

And ladies fair couch man-like on the grass
And some their friends discuss and some their tea.
How sad such heavenly visions all must pass.

And now the sun doth veil her golden light,
And thus concludes a twelve hour period quite
Without spot or blemish, so to all, good-night.

U.P.A.S.I. STATISTICS. SHIPMENT OF SOUTH INDIAN PRODUCE during JANUARY, 1925.

From.	To other ports in India.	Ceylon.	United Kingdom.	Europe.	Asia.	Africa.	America.	Australia.
TEA.								
Madras	10044	...	344	30	500	...	...	...
Calicut	30439	13820	1099295	...	...	...	4770	60
Cochin	45142	37598	761760	...	...	...	...	...
Mangalore	...	...	...	...	1680	...	...	...
Tellicherry	...	1360	51358	...	...	...	...	...
Tuticorin.	...	428835	2353088	1000	...	...	...	...
Alleppey	336	23411	80334	...	...	...	...	...
Totals.	85961	505024	4346179	1030	2180	...	4770	60
Previously	780487	2737173	26723919	64471	5901	6180	114895	...
Total lbs. since 1-4-1924.	866448	3242197	31070098	65501	8081	6180	119665	60
COFFEE.								
Madras.	378	...	...	...	8	...	...	...
Calicut	...	...	4820	662	...	...	...	...
Mangalore	745	...	5873	4518	1464	...	...	241
Tellicherry	...	...	5492	3748	...	...	...	...
Bombay	...	...	...	...	634	...	...	...
Totals	1123	...	16185	8928	2106	...	...	241
Previously	...	...	...	...	...	...	...	...
Total cwts. since 1-1-1925.	1123	...	16185	8928	2106	...	...	241
RUBBER.								
Calicut	...	83697	208872	...	...	...	16360	...
Cochin	1000	203282	437120	...	...	...	11200	...
Mangalore	...	16284	...	...	...	...	...	...
Tellicherry	...	...	17330	...	...	...	...	...
Tuticorin	...	110950	18445	...	...	...	...	...
Alleppey	...	215527	37006	21585	...	...	...	...
Totals	1000	629740	718773	21585	...	...	27560	...
Previously	...	...	...	...	...	...	...	...
Total lbs. since 1-1-1925.	1000	629740	718773	21585	...	...	27560	...
1-1-1925.	1398658							

The Planters' Chronicle

Recognised as the Official Organ of the U. P. A. S. I., Incorporated

Secretary's Registered Telegraphic Address "UPASI," MADRAS.

Mr. EDWIN VINCENT.—Managing Editor, Coimbatore,

Telegraphic Address:—"CHRONICLE," Coimbatore.

VOL XX No 11]

MARCH, 14TH 1925.

[PRICE As 8.

CONTENTS.

PAGE	PAGE.
Coffee in British East Africa. 165	Wynaad Planters' Associa- tion ... 184
Loss of Crop by Rain during the wet months (what the Monsoon Costs in Rubber) 167	Letters to the Editor ... 186

PRICE OF "A" COFFEE.

BY CABLE—LONDON, 13th March, 1925.

162s./—per cwt Market Flat.

COFFEE IN BRITISH EAST AFRICA.

We commented recently on the coffee statistics issued for India by the Director General of Commercial Intelligence. The importance of accurate statistics is not to be denied and it is equally certain that inaccurate statistics are not only of no benefit but are calculated to do actual harm. In the case of India, the remedy is not perhaps very difficult of attainment. We believe that those responsible for them are just as anxious that the figures should be accurate, as we are, but in the case of other countries we are in the unfortunate position of having to accept the pabulum offered to us. We can refer to its short-comings; whether we can have it changed to our liking is a different matter.

In British East Africa the coffee industry is rapidly becoming a factor of the utmost economic importance to that country. It must also be of considerable interest to us in India, since African kinds are a competitive force in the London market where our fine Mysore, Coorg and Sheveroy coffees have for so long held away. It is a pity therefore that reliable statistics are not as readily available as our own export figures which are published monthly.

In the first issue of this volume* we reviewed at some length the report of the Director of Agriculture, Kenya colony, wherein attention

*—*Planters' Chronicle* Vol. XX : No. I January 3rd 1925.

was drawn to the fact that in 1914 the exports of coffee from that colony where 4,452 cwts. In 1920 this had increased to 106,386 cwts. and in 1923, a total of 139,060 cwts was shipped from Mombasa. The presumption is that "shipped from Mombasa" means "Kenya coffee". Our attention has now been drawn to the February issue of *The Indian and Eastern Druggist*, which reproduces some extracts from the report of His Majesty's Trade Commissioner in East Africa on the Trade and Commerce of that country. From this we gather that the exports of coffee in 1923 amounted to 184,400 cwts made up of:—

Kenya	...	...	139028 cwts.
Uganda	...	...	45372 "
			—————
			Total ... 184400 cwts.

This looks like good accounting since the figure 139028 closely approximates that of 139060 given by the Director of Agriculture. Our DRUGGIST contemporary however goes on to say that the estimated production of coffee in Kenya for the year 1923-24 is 122885 cwts "the *increase* being due to new areas coming into bearing." The figures may include a misprint which would explain "*the increase*" but in any case do not convey much without any information as to what period is meant by 1923—24. It may include a large portion of the '22-23 crop shipped in 1923. It is interesting to note that in Uganda, the scheme of native production of *Robusta*, in the Mount Eglou district, is now well in hand and both the Government and planters welcome the extension of such encouragement to other districts.

The export of coffee from Tanganyika during the first half of 1924 amounted to 37,444 cwts. as compared with 29,106 cwts in the corresponding period of 1923. The estimated production for the whole of 1924 amounts to 85,000 to 90,000 cwts., of which 56,000 cwts is expected from the Bukoba district.

The coffee grown by natives generally in East Africa is quite distinct from that grown on European estates, but during the past year a certain amount of land, which had been planted with coffee by the Germans on the slopes of Kilimanjaro, was reincluded in "Native Reserves." The district planters raised many objections to the natives being encouraged to grow a crop needing extreme care against the introduction of disease. The experiment, however, continues, and some 20 tons were exported in 1923—a figure estimated to increase to 60 tons in 1924. The Government are however, fully aware of the possible dangers of the experiment, and are watching the crops carefully. The direct export of higher-class coffee still goes mainly to London, and the trade continues on the basis of advances against consignment terms. There is a continuous, though small, direct purchase for other markets. The native-grown coffee is more and more being bought direct, principally for Continental factories. It is considered that the continual advance in the value of East African coffees will have a very marked effect on the prosperity of the area, especially Kenya.

LOSS OF CROP BY RAIN DURING THE WET MONTHS.

WHAT THE MONSOON COSTS IN RUBBER.

South Indian rubber planters are so inured to the monsoon that they tend to underrate its importance as a restrictor of yield. Most of the blame for the relatively low yields of South India, compared with those of Malaya is laid to the account of the production depressor *Phytophthora: Jupiter Pluvius* the waster never having been debited with his proper share. One fact which has always impressed the writer is that during the good harvesting months, the yields from South Indian estates are not so far short of those obtained from the average Malayan estates in the same months. It is during the monsoon months, June to September—months which are for Malayan estates amongst the best cropping months of the year, that the South Indian yields fall so sadly away.

Without any intention of crying over spilt milk but rather with the object of getting a true idea of the influence of the different adverse factors, I have attempted a calculation of the crop loss directly due to the bad harvesting conditions prevailing during the monsoon

According to the annual records of the Mooply Rubber Station the monthly yields from the alternate day tapped trees in the experimental area during the good harvesting months—October, November, December are from 35 to 50 lbs. per 100 trees. Most of the poorest yielders in this area have been thinned out, and owing to this, and the small tapping task, which should permit of more efficient tapping than on the ordinary estate, one can scarcely take these yields as typical. A yield of 30 lbs. per acre probably more nearly represents the monthly average attained by estates in the months mentioned. There is little doubt that mature South Indian estates tapped on half circumference on alternate days are capable of yielding monthly 26 to 30 lbs. per acre in the months May to September also. The one hindrance to the attainment of these yields is the incessant rains, which give few opportunities for harvesting full crops.

Now assuming, as seems reasonable, that the mature rubber areas of South India have a potential monthly yield capacity of from 26 to 30 lbs. per acre during the five months—May to September, reference to the tables given hereafter help one to realize the extent to which crop possibilities are destroyed by rains. Setting potential crops against crops actually harvested we have :

		Potential Yields.	Yields Harvested.
May	...	30 lbs.	26 lbs.
June	...	30 lbs.	13 lbs.
July	...	26 lbs.	7 lbs.
August	...	26 lbs.	10 lbs.
September	...	30 lbs.	26 lbs.
Total	...	142 lbs.	82 lbs.

Leaving out of account "wash-outs" in September and October, since a few such accidents are inseparable from rubber harvesting even in the best rubber countries, we arrive at a figure in the neighbourhood of 60 lbs. as our annual handicap. Losses during some monsoons will exceed 60 lbs. per acre. They will rarely fall below it, and when ill-informed comparisons are made with other countries and we are tempted to believe that crop deficiencies can be made good by manuring or by imitating some much boomed practice followed elsewhere, we should not forget the above mentioned relative handicap

METHODS OF AMELIORATING MONSOON DIFFICULTIES.

At the risk of being charged with having started a seemingly futile quest, one may enquire whether there is any way of escaping the worst of our climatic drawbacks. In Burma, where Secondary Leaf Fall is not yet such a serious check on production, tapping is discontinued altogether during the monsoon. While the crops lost by this non-tapping policy cannot be wholly made good, the benefits of the annual rest are clearly evident in the harvests obtained after resumption, and Burma crops cannot be considered unsatisfactory for a monsoon country.

The suggestion is frequently made, that on South Indian estates the example of Burma could also be followed with profit. I know of no evidence to show that such a policy would pay, even supposing that the difficulty of disposing of the estate labour during this period could be got over. My own view, for what it is worth, is that, were tapping abandoned during the monsoon, we should frequently have to resort to daily tapping during some of the good yielding months in order to realize estimates. "Needs must when the devil drives", of

course, and Brown Bast notwithstanding, circumstances have occasionally been stronger than our best principles. In view of restriction obligations, however, and with full consciousness of the trouble we should be inviting from Brown Bast, one can scarcely look upon a return to daily tapping, even for a brief annual period, as an exigency requiring present consideration.

It would be useful to have some reliable data showing how the Burma system would work under South Indian conditions, and as soon as local facilities are available, the writer hopes to be able to arrange some experiments which will provide these. Meantime looked at from most aspects a policy of non-tapping during the monsoon would appear to be a mistake in South India. Willing labour is always available during the monsoon, and is easier to keep than get rid of, and as the period during which our trees are in full yield is curtailed by other factors, one feels compelled to take every opportunity of trying to snatch a crop whilst it is in the trees, and can be got without doing permanent damage. Though the continual flooding of the soil leads to considerable asphyxiation of the root hairs and temporarily reduces to some extent the yielding capacity of trees during the monsoon, latex in good volume is available in the trees at this season, and we know that, provided efficient measures are taken against Stripe Canker, this latex can be withdrawn without serious damage. Our one difficulty is to collect the latex before the rains wash it away.

EXPERIMENTS WITH DRIP PREVENTION DEVICES.

Realizing long ago that bad harvesting conditions throughout the months June to September are a most important factor in reducing rubber crops in South India, I have made many attempts during the last three years to see whether, by the construction of a protective arrangement over the tapping cut, something cannot be done to avert a little of the tremendous crop loss.

On the Mooply Experimental Station last year an investigation was made into the respective crop saving effected by large Aluminium Shields several inches in width, and Rope Protectors. The Aluminium Shields I should mention were the idea of Mr. G. H. Davey, Director of Mooply Estate to whose interested co-operation and that of the Manager, these trials owe a good deal. In one block the tapping cuts were protected with the shields, and in another by ropes applied two or three inches above the tapping cut. Adjoining blocks, in which the cuts were unprotected, served as controls.

Following are the comparative yields harvested by alternate day tapping from the rope protected and the unprotected blocks :

Alternate Daily Yields of Dry Rubber during the Monsoon per 100 trees from plot in which cuts were protected with Rope Gutters as compared with that of Plot in which Cuts were unprotected.

JUNE 1924.

Date.	Protected with Rope Gutters.			Control (without Gutters).			Difference crop saved by Rope Gutters. Oz.
	Sheet Oz.	Scrap Oz.	Total Oz.	Sheet Oz.	Scrap Oz.	Total Oz.	
1	18.22	5.50	23.72	18.71	3.69	22.40	1.32
3	18.86	3.84	22.70	13.19	4.08	17.27	5.43
5	5 66	2.95	8.61	2.83	2.22	5.05	3.56
7	24 03	2.60	26.63	13.52	2.95	16.47	10.16
9	27.75	5.71	33.46	22.48	4.09	26.57	6.89
11	11.34	3.35	14.69	5.13	4.23	9.36	5.33
13	16.85	2.95	19.80	9.41	2.76	12.17	7.63
15	11.01	2.95	13.96	6.71	3.35	10.06	3.90
17	12.15	4.08	16.23	10.04	3.69	13.73	2.50
19	18.97	1.87	20.84	13.99	1.87	15.86	4.98
21	18.97	1.87	20.84	13.40	1.62	15.02	5.82
23	23.91	2.02	25.93	19.17	1.13	20.30	5.63
25	16.57	3.35	19.92	14.31	3.84	18.15	1.77
27	16.57	2.95	19.52	14.56	3.84	18.40	1.12
29	11.10	3.84	14.94	9.89	2.95	12.84	2.10
Total	251.96	49.83	301.79	187.34	46.31	233.65	68.14

Summarised Yields during June:

Trees Protected with Rope Gutters ... = 18.86 lbs dry rubber.
 Trees *Not* Protected with Rope Gutters ... = 14.60 " "
 Difference - Saving effected by Gutters ... = 4.26

JULY 1924.

Date.	Protected with Rope Gutters.			Control (without Gutters).			Difference crop saved by Rope Gutters. Oz.
	Sheet Oz.	Scrap Oz.	Total Oz.	Sheet Oz.	Scrap Oz.	Total Oz.	
1	12.86	3.77	16.63	9.47	3.95	13.42	3.21
3	11.37	3.09	14.46	9.25	3.09	12.34	2.12
5	11.24	3.31	14.55	4.28	2.93	7.21	7.34
7	6.50	2.93	9.43	4.49	2.67	7.16	2.27
9	6.67	4.31	10.98	5.95	3.77	9.72	1.26
11	11.33	1.67	13.00	6.62	1.67	8.29	4.71
14	7.00	1.25	8.25	5.04	1.05	6.09	2.16
16	5.70	1.67	7.37	4.28	1.25	5.53	1.84
18	6.26	2.45	8.71	5.29	0.80	6.09	2.62
20	6.12	1.25	7.37	4.49	0.48	4.97	2.40
22	7.94	2.45	10.39	2.67	1.67	4.34	6.05
25	6.32	2.83	9.15	4.93	2.08	7.01	2.14
27	6.18	3.37	9.55	5.51	2.93	8.44	1.11
29	8.99	2.08	11.07	4.69	2.45	7.14	3.93
31	6.39	3.37	9.76	4.89	2.70	7.59	2.17
Total	120.87	39.80	160.67	81.85	33.19	115.04	45.63

Summarised Yields during July:

Trees protected with Rope Gutters.	... = 10.04 lbs. dry rubber.
Trees <i>Not</i> protected with Rope Gutters	... = 7.21 " "
Difference = Saving effected by Gutters	... = 2.83 " "

AUGUST 1924.

Date.	Protected with Rope Gutters.			Control (without Gutters).			Difference crop saved by Rope Gutters. Oz.
	Sheet Oz.	Scrap Oz.	Total Oz.	Sheet Oz.	Scrap Oz.	Total Oz.	
2	11.32	3.35	14.67	6.99	2.93	9.92	4.75
4	8.43	2.51	10.94	7.35	1.67	9.02	1.92
6	9.73	2.51	12.24	8.74	1.26	10.00	2.24
8	8.40	3.35	11.75	6.79	2.72	9.51	2.24
10	11.00	4.39	15.39	3.02	2.93	5.95	9.44
12	7.47	2.30	9.77	5.81	1.88	7.69	2.08
14	9.19	3.35	12.54	8.68	2.09	10.77	1.77
16	7.36	4.18	11.54	5.33	3.35	8.68	2.86
18	7.99	2.51	10.50	6.04	1.67	7.71	2.79
20	10.64	3.98	14.62	5.94	2.93	8.87	5.75
22	9.06	5.02	14.08	6.90	3.77	10.67	3.41
24	7.38	3.56	10.94	5.56	2.51	8.07	2.87
26	12.90	2.93	15.83	8.15	2.09	10.24	5.59
28	14.06	5.86	19.92	10.86	3.35	14.21	5.71
30	8.69	4.60	13.29	6.41	2.93	9.34	3.95
Total	143.62	54.40	198.02	102.57	38.08	140.65	57.37

Summarised Yields during August:

Trees protected with Rope Gutters ... = 12.38 lbs. dry rubber
 Trees not protected with Rope Gutters ... = 8.79 " "

Difference = Saving effected by Gutters ... = 3.59 " "

SEPTEMBER (First Three Days only)

Trees protected with Rope Gutters ... = 4.0 lbs. dry rubber.

Trees not protected with Rope Gutters ... = 3.1 " "

Difference = Saving effected by Rope Gutters... = 0.9 " "

Alternate Daily Yields of Dry Rubber during the Monsoon per 100 trees from plot in which cuts were protected with Aluminium Shields as compared with that of plot in which cuts were unprotected.

JUNE 1924.

Date.	Protected with Metal Shields.			Control (without Shields)			Difference crop saved by Metal Shields. Ozs.
	Sheet Ozs	Scrap Ozs.	Total Ozs.	Sheet Ozs.	Scrap Ozs.	Total Ozs.	
2	21.56	4.23	25 79	14.72	4.43	19 15	6.64
4	...	...	...	...	...	...	...
6	16 49	4 63	21.12	12.37	4.43	16.80	4.32
8	25.25	2.95	28.20	16.57	2 76	19.33	8.87
10	25 76	5.32	31.08	16.93	4.08	21.01	10.07
12	...	...	...	...	...	...	...
14	8 42	2.95	11 37	5.17	2.76	7 93	3.44
16	10.24	4.43	14.67	6.54	3.69	10 23	4.44
18	17 93	3.84	21.77	15.15	2.61	17 76	4.01
20	19 44	2.95	22.39	18.99	3.50	22.49	...
22	17.73	5.91	23.64	15.51	3.35	18.86	4.78
24	21 03	3.15	24.18	15 90	3.35	19.25	4.93
26	13.47	4.82	18.29	8.30	3.84	12.14	6 15
28	23.50	2.61	26.11	16.23	2 22	18 45	7 66
30	21.65	3.69	25.34	12.44	3.69	16 13	9.21
Total	242.47	51.48	293.95	174.82	44.71	219.53	74 42

Summarised Yields during June:

Trees protected with Metal Shields	...	=18 37 lbs	dry rubber.
Trees <i>not</i> Protected with Metal shields	...	=13.72	" "
Difference—Saving effected by Shields	...	= 4.65	" "

JULY 1924.

Date.	Protected with Metal Shields			Control (Without Shields)			Difference crop saved by Metal Shields OZS.
	Sheet OZS.	Scrap OZS.	Total OZS.	Sheet OZS.	Scrap OZS.	Total OZS.	
2	18.94	8.77	22.71	11.79	8.52	15.31	7.40
4	12.50	5.23	17.73	12.21	3.87	15.58	2.15
6	10.24	3.95	14.19	4.91	2.93	7.84	6.35
8	9.25	3.95	13.20	5.76	2.93	8.69	4.51
10	9.47	5.23	14.70	5.04	4.80	9.84	4.86
12	6.31	3.77	10.08	4.44	2.93	7.87	2.71
15	7.94	2.08	10.02	4.63	1.87	6.50	3.52
17	8.82	1.67	10.49	4.65	0.80	5.45	5.04
19	9.38	0.48	9.86	...	...	...	9.86
21	6.99	0.59	7.58	5.44	0.59	6.03	1.55
4	5.41	1.67	7.08	4.11	0.83	4.94	2.14
26	7.02	1.67	8.69	3.85	1.05	4.90	3.79
28	6.38	4.44	10.82	4.81	3.77	8.58	2.24
30	6.77	2.93	9.70	5.51	2.09	7.60	1.10
Total	125.42	41.43	166.85	77.15	31.48	108.63	58.22

Summarised Yields During July:-

Trees protected with Metal Shields = 10.43 lbs dry rubber
 Trees not protected with Metal Shields = 6.79 " "
 Difference = Saving effected by Shields = 3.64 " "

AUGUST 1924

Date.	Protected with Metal Shields.			Control (without Shields)			Difference crop saved by Metal Shields. Ozs.
	Sheet Ozs.	Scrap Ozs.	Total Ozs.	Sheet Ozs.	Scrap Ozs.	Total Ozs.	
1	11.17	2.51	13.68	9.32	2.09	11.41	2.27
3	10.61	4.60	15.21	8.68	2.93	11.61	3.60
5	11.64	2.93	14.57	7.79	2.51	10.30	4.27
7	7.76	2.93	10.69	5.04	2.09	7.13	3.56
9	7.25	2.51	9.76	6.47	1.88	8.35	1.41
11	8.91	5.65	14.56	7.57	2.09	9.66	4.90
13	11.00	2.51	13.51	6.73	1.88	8.61	4.90
15	8.36	4.60	12.96	6.47	4.18	10.65	2.31
17	13.39	1.68	15.07	10.44	1.26	11.70	3.37
19	9.11	4.18	13.29	7.38	3.35	10.73	2.56
21	11.89	2.51	14.40	8.41	1.46	9.87	4.53
23	8.18	4.60	12.78	5.77	2.51	8.28	4.50
25	10.67	2.51	13.18	7.15	0.84	7.99	5.19
27	13.64	6.07	19.71	8.63	4.18	12.81	6.90
29	17.20	4.18	21.38	10.35	2.51	12.86	8.52
31	12.62	2.72	15.34	8.19	1.68	9.87	5.47
Total	173.40	56.69	230.09	124.39	37.44	161.83	68.26
	10.84lbs	3.54lbs	14.38lbs	7.77lbs	2.34lbs	10.11lbs	4.27lbs

SEPTEMBER (First Two Days only).

Trees protected with Metal Shields = 3.49 lbs. dry rubber.

Trees not protected " " = 3.07 " " "

Difference = Saving effected by Metal Shields 0.42 " " "

DAILY TAPPING.

All the yields so far tabulated were obtained by alternate day tapping on $\frac{1}{2}^{\circ}$. Results are also available from plots in which the tapping was carried out daily on $\frac{1}{2}^{\circ}$. Yields from daily tapping are fast ceasing to have any but an historical interest. In this instance however, the daily records may justly claim some attention, since, apart from the detailed picture of the daily losses by rain they present, they give some idea of the extent to which such losses are preventable.

Daily yields of Dry Rubber per 100 trees during the Monsoon from Plot in which cuts were protected by Rope Gutters as compared with plot in which cuts were not protected.

JUNE 1924.

Date	Protected with Rope Gutters			Control (Without Gutters)			Difference crop saved by Rope Gutters. ozs.
	Sheet ozs.	Scrap ozs.	Total ozs.	Sheet ozs.	Scrap ozs.	Total ozs.	
1	14.84	2.48	16.82	10.40	1.80	12.20	4.62
2	19.59	2.48	22.07	15.60	1.40	17.00	5.07
3	12.69	2.48	15.17	10.40	1.20	11.60	3.57
4	No tapping	...	...	...	...	...	...
5	9.10	2.21	11.31	5.20	1.20	6.40	4.91
6	12.69	2.48	15.17	10.40	1.20	11.60	3.57
7	14.84	2.21	16.55	10.40	1.20	11.60	4.95
8	16.00	2.48	18.48	13.00	1.40	14.40	4.08
9	15.17	4.14	18.31	10.40	2.80	15.20	5.11
10	14.34	3.51	17.65	11.80	2.40	14.20	3.45
11	No tapping	...	...	...	...	...	...
12	No tapping	...	...	...	...	...	...
13	11.59	2.48	14.07	8.40	1.40	9.80	4.27
14	9.10	2.48	11.58	6.40	1.80	8.20	3.38
15	6.34	2.21	8.55	No tapping	...	...	8.55
16	9.98	1.66	11.59	7.20	0.80	8.00	3.59
17	8.00	2.21	10.21	6.40	1.00	7.40	2.81
18	7.17	2.21	9.38	5.80	1.20	7.00	2.38
19	9.10	1.66	10.76	7.80	1.40	9.20	1.56
20	10.76	2.48	13.24	9.00	1.20	10.20	3.04
21	12.69	2.48	15.17	9.00	1.40	10.40	4.77
22	12.69	1.66	14.35	9.80	1.40	11.20	3.15
23	12.69	1.66	14.35	10.40	1.00	11.40	2.95
24	9.98	2.48	12.41	7.80	1.80	9.60	2.81
25	9.10	3.59	12.69	7.80	1.80	9.60	3.09
26	12.69	2.48	15.17	9.00	1.80	10.80	4.37
27	12.69	2.21	14.90	9.00	1.00	10.00	4.90
28	16.00	2.48	18.48	10.40	1.80	12.20	6.28
29	14.84	2.21	16.55	10.40	1.40	11.80	4.75
30	17.98	2.21	20.14	12.40	1.20	13.60	6.54
Total	381.00	65.12	396.12	244.60	38.00	282.60	113.52 ozs.
	20.69 lbs	4.07 lbs	24.76 lbs	15.29 lbs	2.37 lbs	17.66 lbs	7.10 lbs.

JULY 1924.

Date.	Protected with Rope Gutters.			Control (Without Gutters)			Difference crop saved by Rope Gutters ozs.
	Sheet ozs.	Scrap ozs.	Total ozs.	Sheet ozs.	Scrap ozs.	Total ozs.	
1	12.69	2.22	14.91	11.89	1.90	13.79	1.12
2	11.78	2.62	14.40	9.50	1.74	11.24	3.16
3	8.16	2.48	10.59	9.50	1.90	11.40	4.16
4	13.57	2.48	16.00	9.50	2.36	11.86	4.16
5	8.16	1.88	9.99	7.14	0.95	8.09	1.90
6	12.69	1.83	14.52	9.50	1.10	10.60	3.92
7	10.88	2.48	13.31	7.14	1.90	9.04	4.27
8	9.97	2.02	11.99	7.14	1.26	8.40	3.59
9	10.88	1.62	12.50	6.52	0.79	7.31	5.19
10	11.78	1.62	13.40	8.32	0.95	9.27	4.13
11	12.69	1.88	14.52	8.32	1.10	9.42	5.10
12	7.24	1.62	8.86	5.95	1.26	7.21	1.65
13	No	Tapping	...	...	...	...	...
14	9.07	1.42	10.49	6.52	1.10	7.62	2.86
15	10.88	1.42	12.30	5.95	0.79	6.74	5.56
16	No	Tapping owing to floods	...	...	...	...	...
17	...	...	...	...	...	...	...
18	...	...	...	...	...	...	...
19	...	...	...	...	...	...	...
20	...	...	...	...	...	...	...
21	...	...	...	...	...	...	...
22	...	...	...	...	...	...	...
23	...	...	...	...	...	...	...
24	...	...	...	...	...	...	...
25	...	...	...	...	...	...	...
26	7.24	1.88	9.07	4.16	1.10	5.26	3.81
27	7.24	1.88	9.07	5.35	1.10	6.45	2.62
28	7.24	1.62	8.86	4.76	1.10	5.86	3.00
29	8.16	0.80	8.96	5.95	0.79	6.74	2.22
30	9.07	1.83	10.90	6.52	1.58	8.10	2.81
31	9.07	2.02	11.09	5.35	1.43	6.78	4.31
Total.	198.46	87.27	285.73	144.99	26.20	171.19	64.54 oz =
	12.40 lbs	2.38 lbs	14.78 lbs	9.06 lbs	1.64 lbs	10.70 lbs	4.08 lbs

AUGUST 1924.

Date.	Protected with Rope Gutters.			Control (Without Gutters)			Difference crop saved by Rope Gutters ozs.
	Sheet ozs.	Scrap ozs.	Total ozs.	Sheet ozs.	Scrap ozs.	Total ozs.	
1	8.98	2.09	11.02	6.61	1.21	7.82	3.20
2	10.72	1.88	12.60	7.98	1.06	8.99	3.61
3	9.83	2.31	12.14	6.61	1.51	8.12	4.02
4	18.40	2.50	15.90	7.98	1.21	9.14	6.76
5	10.72	1.47	12.19	9.25	1.06	10.81	1.88
6	8.98	2.81	12.24	7.98	1.51	9.44	2.80
7	10.72	2.81	18.03	7.98	1.51	9.44	8.59
8	8.08	2.81	10.34	6.61	1.51	8.12	2.22
9	10.72	2.50	18.22	7.98	1.81	9.74	8.48
10	7.16	1.88	9.04	5.29	1.06	6.85	2.69
11	No Tapping	...	...	...	...	...	...
12	10.72	1.88	12.60	7.98	0.90	8.88	3.77
13	12.50	2.50	15.00	9.25	1.21	10.46	4.54
14	10.72	1.88	12.60	8.59	1.51	10.10	2.50
15	12.50	2.50	15.00	8.59	1.86	9.95	5.05
16	10.72	1.88	12.60	7.98	1.06	8.99	3.61
17	12.50	2.09	14.59	10.58	1.1	12.09	2.50
18	10.72	2.50	18.22	8.59	2.26	10.85	2.87
19	11.62	2.09	18.71	9.25	1.51	10.76	2.95
20	12.50	1.67	14.17	10.58	0.90	11.48	2.69
21	12.50	2.98	15.48	9.25	2.11	11.86	4.07
22	18.40	2.81	15.71	10.58	1.66	12.24	8.47
23	10.72	2.72	18.44	7.98	1.51	9.44	4.00
24	18.40	2.72	16.12	10.58	1.66	12.24	3.88
25	12.50	2.50	15.00	9.25	1.66	10.91	4.09
26	14.29	2.72	17.01	10.58	1.51	12.09	4.92
27	14.29	2.50	16.79	9.25	1.66	10.91	5.88
28	12.50	2.09	14.59	9.25	1.21	10.46	4.18
29	10.72	2.50	18.22	6.61	1.81	8.42	4.80
30	12.50	1.88	14.88	8.59	1.21	9.80	4.58
31	14.29	1.88	16.17	11.24	1.51	12.75	8.42
Total	844.77	67.80	412.07	258.42	43.18	801.60	110.47 oz
	21.55 lbs	4.21 lbs	25.76 lbs	16.15 lbs	2.7 lbs	18.85 lbs	6.9 lbs

SEPTEMBER 1924.

Date.	Protected with Rope Gutters.			Control (without Gutters).			Difference crop saved by Rope Gutters. Ozs.
	Sheet Ozs.	Scrap Ozs.	Total Ozs.	Sheet Ozs.	Scrap Ozs.	Total Ozs.	
1	22.39	2.79	25.18	15.50	1.85	17.35	7.83
2	21.28	2.79	24.07	14.73	1.69	16.42	7.65
3	16.79	2.79	19.58	12.28	2.03	14.31	5.27
4	11.19	1.62	12.81	9.83	1.69	11.52	1.29
5	15.67	1.16	16.83	15.50	1.35	16.85	...
6	15.67	2.79	18.46	13.10	2.03	15.13	3.33
7	15.67	2.79	18.46	12.28	2.19	14.47	3.99
8	13.43	2.79	16.22	13.10	2.36	15.46	0.76
9	13.43	2.55	15.98	14.73	2.36	17.09	...
10	14.55	2.79	17.34	14.73	2.69	17.42	...
11	15.67	2.79	18.46	13.10	2.19	15.29	3.17
12	17.90	2.55	20.45	13.91	2.69	16.60	3.85
13	21.28	2.79	24.07	19.64	2.36	22.00	2.07
14	17.90	2.33	20.23	19.64	2.36	22.00	...
15	17.90	2.55	20.45	18.00	2.36	20.36	0.09
16	19.03	2.55	21.58	18.00	2.69	20.69	0.89
17	20.16	2.55	22.71	18.00	2.54	20.54	1.57
18	17.90	2.55	20.45	19.64	2.36	22.00	...
19	20.16	2.79	22.95	19.64	2.85	22.49	0.46
20	19.03	2.55	21.58	20.46	2.54	23.00	...
21	20.16	2.55	22.71	18.83	2.36	21.19	1.52
22	21.28	2.33	23.61	19.64	2.36	22.00	1.61
23	21.28	3.72	25.00	18.83	3.45	22.28	2.72
24	29.10	2.55	31.65	27.83	2.54	30.37	1.28
25	21.28	3.02	24.30	13.10	2.19	15.29	9.01
26	16.79	2.33	19.12	13.10	1.85	14.95	4.17
27	22.39	2.55	24.94	20.46	2.36	22.82	2.12
28	22.39	2.55	24.94	19.64	2.36	22.00	2.94
29	20.16	3.72	23.88	18.00	3.20	21.20	2.68
30	16.79	3.48	20.27	14.73	3.37	18.10	2.17
Total	558.62 34.91 lbs.	79.66 4.98 lbs.	638.28 39.89 lbs.	499.97 31.25 lbs.	71.22 4.45 lbs.	571.19 35.70 lbs.	67.09 oz = 4.19 lbs.

INFLUENCE OF GUTTERS ON STRIPE CANKER.

In view of the lessened opportunities for infection on the more rapidly drying cuts, it would be expected that cuts protected from drip would not become so seriously affected by Stripe Canker as unprotected cuts. Expectations were, in this case, borne out. On the protected cuts the percentage of Stripe Canker infections recorded was about 20 per cent less than that on the naked cuts.

DISCUSSION OF RESULT.

Discussing first the results from the alternate day tapped trees with Rope Gutters, which, as will be shown elsewhere, are of most practical importance, the total extra crop harvested in the three months by the use of these was 11.58 lbs. dry rubber. With regard to this figure, while a crop saving of nearly 12 lbs. per acre is a return which very much more than repays the cost of the Gutters, observations made at the time, and subsequent enquiries show that with more efficient control the saving would have been greater. From numbers of trees the Rope Gutters became partially or wholly detached before the end of August, and it was impossible owing to the continuously damp condition of the bark to reaffix them properly. Through faulty attachment, the crop saving possible to the Gutters was certainly lessened by one pound per acre.

Another factor which kept the gutters from showing up the fullest advantage was their late application and too early removal. There is always some loss of crop from rain in May, while as for September-October, unusually bad harvesting conditions were experienced in 1924 during these months. Had a drip prevention device been in operation the whole season, an additional 2 lbs. per acre at the very least would have been collected.

A further point which deserves to be mentioned here is the abnormal character of the 1924 monsoon, which made tapping conditions just about as bad as they could be. Rains were exceptionally heavy, and fell almost unceasingly, giving few intervals during which the tappers could get out to tap. Things were particularly bad in July, when, as the daily records show, a portion of the Experimental Area was flooded, and for a week scarcely any tapping could be done.

Now a gutter device such as described is of little use during heavy driving rains. It is on days of intermittent showers and on mornings after heavy overnight or early morning rains that its great value is evident. So far as the monsoon is concerned, one is not wise to be too optimistic in making forecasts for the future, and a certain number of days, which are absolute "Washouts," must be reckoned on. Fortunately tapping conditions are rarely as bad as in 1924, and it is a reasonable assumption that, given a more average monsoon, the successful prevention of drip would lead to greater crop saving than that recorded.

DIFFICULTIES ASSOCIATED WITH PROTECTIVE ATTACHMENTS.

With regard to the other records, a feature which occasions some surprise is the very slight superiority of the Broad Metal Shields compared with the much narrower Rope Gutters. For the whole period from January to September 3rd, the aggregate crop saved by

the Shields was 12.98 lbs which is only 1.4 lbs. more than that given by the ropes.

The relative failure of the Shields to realize expectations must be attributed very largely to their frequent disadjustment. One trouble about any drip prevention device that has to be attached to the tree is the care necessary to seal all the joints, and to keep them sealed. Satisfactory cements have been found, but coolies everlastingly tinker about and interfere with the attachments after they have been well sealed, and it is common to find that by the time the Shields or Gutters have been going a month or two, numbers of them have been worked loose by injudicious tampering, and are not functioning as intended. The more elaborate the device, the more difficult it is to adjust, and the more liable to become disadjusted; hence the efficiency attained with the Metal Shields which should have saved twice the crop saved by the ropes, was actually not much greater than that of the latter.

Although results from only one type of rain protector are recorded here, trials have not been confined to this. During the past two or three years dozens of protectors, constructed of a variety of materials, have been experimented with and the mechanical difficulties associated with an arrangement which has to fit trees of differing sizes and contours have been solved. The great obstacle to the adoption of these contraptions however, apart from their cost, is that referred to above, e. g. the impossibility of maintaining them in a leak-proof condition. Much experimentation on this problem has convinced me that on a big scale, mechanical rain protectors are not feasible, and I have had reluctantly to abandon the ambitious hopes, once entertained, of getting an attachment that would be deluge proof enough to make every day a good harvesting day. Practical attempts to solve the problem must, experience teaches, be limited to measures for dealing with the drip. It is the constant drip, continuing sometimes for hours after the rains have ceased, that is responsible for from 20 to 30% of the crop deficiencies during the monsoon.

A PRACTICAL SOLUTION OF DRIP PROBLEM.

The results obtained from the trees protected with Rope Gutters have been discussed fairly fully, because they indicate the saving possible to the more practicable drip prevention device recommended in another report. A simple device which promises in a large measure to mitigate the drip nuisance has been described in a circular issued to estates. No trustworthy figures are yet available for publication, but observations of the device in action indicate that where it is properly applied, it will enable from 10 to 15 lbs. of the 60 lbs. ordinarily missed in the monsoon, to be safely harvested. Such an aid should make tapping profitable on most days during the monsoon.

RAINFALL IN RUBBER AREA.

In connection with the problem under discussion the appended table, which gives the annual distribution of the rainfall at the Moolpy Experimental Station during the last four years may be found useful.

H. ASHPLANT.

MOOPLY EXPERI

RAINFALL STATEMENT

Months.		1920.				1921.			
		Monthly.	Number of rainy days.	Rain in day time	Rain in the night.	Monthly.	Number of rainy days.	Rain in day time.	Rain in the night.
January	...	0.85	3	0.79	0.06	0.15	2	...	0.15
February	...	0.02	1	...	0.02	...	...	...	...
March	...	0.20	1	0.20	...	...	...	...	...
April	...	4.37	12	3.73	0.64	4.78	12	1.76	3.02
May	...	4.41	8	1.08	3.33	4.94	14	2.01	2.93
June	...	36.71	28	15.74	20.97	23.61	29	8.86	14.75
July	...	38.99	31	20.83	18.16	28.35	25	16.38	11.97
August	...	11.86	28	6.16	5.70	31.42	228	12.70	18.72
September	...	6.57	18	3.26	3.31	4.34	13	1.15	3.19
October	...	18.86	19	5.71	13.15	12.57	16	7.16	5.41
November	...	11.23	25	4.08	7.15	6.15	9	2.94	3.21
December	...	...	...	...	...	0.18	1	0.18	...
Total	...	134.07	16.4	61.58	72.49	116.49	149	53.14	63.35

MENTAL STATION.

FOR LAST FIVE YEARS.

1922.				1923.				1924.			
Monthly.	Number of rainy days.	Rain in day time.	Rain in the night.	Monthly.	Number of rainy days.	Rain in day time.	Rain in the night.	Monthly.	Number of rainy days.	Rain in day time.	Rain in the night.
1.57	2	0.41	1.16	...	...	...	...	...	...	...	...
0.08	1	0.08	...	...	...	...	...	...	...	...	...
0.03	1	0.03	...	4.18	6	1.30	2.88	1.26	7	0.27	0.99
1.01	7	0.27	0.74	2.16	4	0.02	2.14	2.69	7	2.00	0.69
14.83	21	7.15	7.68	1.23	6	1.04	0.19	11.07	15	2.55	8.52
28.17	29	15.29	12.88	35.25	28	13.14	22.11	54.71	28	21.92	32.79
45.62	27	17.69	27.93	44.36	31	17.41	26.95	61.92	31	28.93	32.99
19.29	27	7.76	11.53	40.51	29	16.51	24.00	39.07	30	10.95	28.12
9.46	20	3.92	5.54	9.17	24	1.46	7.71	11.92	13	7.20	4.72
14.03	20	3.02	11.01	4.38	9	2.33	2.05	12.54	11	3.04	9.50
7.44	13	5.83	1.61	2.89	5	2.38	0.51	10.28	6	4.23	6.05
0.12	1	...	0.12	0.26	2	...	0.26	2.04	5	...	2.04
141.65	169	61.45	80.20	144.39	144	55.59	88.80	207.50	153	81.09	126.41

WYNAAD PLANTERS' ASSOCIATION.

Proceedings of an Ordinary General Meeting of the Wynaad Planters' Association held at the Meppadi Club on Wednesday the 18th. February 1925 at 2-30 p. m.

Present. Messrs. B. M. Behr (Chairman) J. A. Gwynne, K. C. Pryor, E. Janzen, J. Strachan, H. J. C. Hammond, E. E. Eyre, W. A. Reynolds, T. P. Gauld, R. P. N. Swayne, M. W. Mackay, E. R. Peachy, T. C. Anderson, and J. H. B. Sullivan (Honorary Secretary),

Visitor. O. E. Windle Esq., D. S. P.

The Chairman in opening the meeting said "Gentlemen—please stand. Before we begin the business of the meeting I feel that I am expressing your sentiments by offering our sincere sympathies and condolences to Mr. and Mrs. Powell and the other members of the family of the late Mr. Powell in their bereavement."

The minutes of the last meeting were confirmed.

Report of the Labour Control Committee for the W. P. A. Mr. T. P. Gauld referring to his visit to the meeting at Coimbatore said that he had agreed with the Nilgris and Anamallais, in that if the Superintendents of the Labour Department supervise the issuing of warrants they have no time for any other work, and advocated handing over the service of warrants to the Police. Civil cases likewise to be run by the parties concerned.

On free Labour. He had disagreed with the Anamallais, in that they suggested a rate of 8 annas daily pay for unadvanced coolies.

Propaganda. The Committee were in agreement with furthering this scheme.

New Superintendent, Labour Department. The Committee were agreed that a new Assistant Superintendent be employed by the Executive Committee.

Basis of Subscription. Mr. Gwynne, Chairman, U. P. A. S. I. kindly explained this very carefully placing the statement on the table.

Budget. Mr. Behr was asked to read out the Budget which he did at Mr. Gauld's request.

Delegates' Expenses. Mr. Gauld said that like the other delegates he hoped his Association would see its way to pay his expenses.

Attestation of Warrants by Agents. This was not deemed suitable and had been turned down by the Executive Committee.

Bonus for Agents. Mr. Gauld agreed with this.

New Labour. Mr. Gauld explained what the proposals of the Control Committee were and suggested a W. P. A. Labour Committee.

Reports from the Superintendent. Mr. Gauld explained that this was naturally only what was expected.

The Superintendent Labour Department Motor Caravan. This had been passed by the Executive Committee, and in his own opinion needed.

The Meeting thanked Mr. Gauld for having attended Coimbatore as their Delegate and were unanimous in granting his expenses and agreed entirely with all his suggestions, and it was agreed to have another meeting early in March to confer with the Delegates to Mysore and Bangalore.

Election of Delegates to the General Meeting of the U.P.A.S.I. in Ooty at the end of March. The Chairman and Mr. Gauld elected.

Relapsing Fever. Mr. Behr referred to Dr. Milton's Circular and the Meeting was entirely in agreement with that circular.

Correspondence and any other competent business. Mr. Eyre spoke on an appeal case he had lost on there being no descriptive marks on the contracts, and had taken the matter to the Collector who had reversed the judgement.

Roads and Bridges. The Honorary Secretary was instructed to write to the Executive Engineer, Calicut asking him to repair the bridge at the 50th mile on the Mysore—Calicut Road as it was in a dangerous condition. Also the District Board Engineer with regard to various other bridges which are also in danger.

English Mail The Honorary Secretary was instructed to write to the District Superintendent of Post Offices, Cannanore, and ask him why our mails although they reach Madras on a Sunday morning are not delivered here till Wednesday morning.

Labour Committee for the District. The following were elected. Messrs. Craig, Gauld, Eyre, Swayne, and Behr with power to add to their number and a meeting was called for Wednesday at 3-30 p. m. at the Meppadi Club.

Mr. O. E. Windle, D.S.P. kindly answered a few questions and was accorded a hearty vote of thanks.

With a vote of thanks to the Chair the meeting terminated.

B. M. BEHR,
Chairman.

J. H. B. SULLIVAN,
Hon. Secretary.

LETTERS TO THE EDITOR.

*(The Planters' Chronicle is not responsible for the
opinions of its correspondents)*

C. No. 115/25

Office of the Dy Director of Agriculture,
Planting Districts, Lawley Road, P. O.,
Coimbatore Dated 11th March 1925.

From,

D G. MUNRO Esq., B. Sc.,
Dy. Director of Agriculture,
Planting Districts, Coimbatore.

To

The Editor of the Planters' Chronicle,
Coimbatore.

DEAR SIR,

I would like to draw the attention of coffee planters in Southern India to the extract herewith enclosed about diseases in Java and Brazil. Up to the present these diseases have not been known in South India and we certainly do not want them.

The rules anent importation of coffee seed and plants into India as published in the Fort St. George Gazette of August 22nd, 1922, pages 811 and 812 are as follows :—

" 7. Coffee and Hevea rubber plants shall not be imported into British India by sea from America (including the West Indies) except by the Madras Agricultural Department."

" 8. Seeds of coffee, flax, bersim, and cotton shall not be imported by land or by sea by letter or by sample post "

" 9. Coffee and Hevea rubber seeds shall not be imported in British India by sea from America (including the West Indies) except by the Madras Agricultural Department."

We have already a sufficiency of coffee root, stem, leaf and bean diseases with us and it is therefore up to every one great and small, not to risk introducing any more.

That the matter is viewed seriously by the Agricultural Department of Java is shown by the extract from a recent reply from the Director of the General Experiment Station there in reply to one from me enquiring about Robusta Coffee seed :—

" I have to inform you that it is practically impossible to supply you with seeds of Robusta Coffee from here, free from disease."

" 2. Everywhere now Robusta is attacked here by *Stephanoderes Hampei* ; as the larvæ live in the seeds the import of seeds presents the danger to introduce the pest with them."

" 3. Disinfection of the seeds can be applied, but they lose soon afterwards their germinative power."

" 4. Under these circumstances I would advise you not to take coffee seeds from here."

Under the circumstances no seed was imported.

Yours faithfully,

D. G. MUNRO,

Dy. Director of Agriculture,

Planting Districts

(Enclosure)

COFFEE PEST.

(Extract from the *Madras Mail* of 11th March 1925)

Outlook Serious. The seriousness of the operations on the coffee pest in Sao Paulo and other States is indicated in the following which appears in "Wileman's Brazilian Review" out on September 10th 1924.

Our editor had opportunity last week of visiting the city of Sao Paulo and the Coffee Defence Service, a branch of the Department of Agriculture of the State of Sao Paulo.

This department which is under the able administration of Dr. Arthur Neiva, Director of the National Museum, and of Dr. Edmundo Navarro de Andrade, is a wonder of perfection possessing a model laboratory for the scientific study and treatment of coffee, and a museum showing its cultivation, treatment and above all things the havoc played by the *Stephanoderes Coffee*."

We never realised the extent of the damage done by this pest until we made this personal investigation, and we are now convinced that the plague is a factor of very serious consequences

The Government of Sao Paulo, however has left no stone unturned to fight the pest, and, although it will not be possible to exterminate it altogether, its ill effects can and will be reduced to a minimum.

We had opportunity of seeing the evolution of the pest and its enormous destructive power. It attacks the fruit and the bean where it lodges and destroys it for consumption purposes. Happily it does not attack the trees, so that its partial eradication without the sacrifice of the plant is made possible.

Pest Came from Java. "The *Stephanoderes Coffee*" was imported from Java where it has done a great deal of damage. This pest is not unlike the coffee berry beetle. Its propagation has been slow but very destructive. Prior to being cleaned, the only signs on the bean of the presence of the pest are little holes the size of a pinprick. After the coffee goes through the process of cleaning (*beneficiado*) only a shell, with rotted appearance, is left.

The spreading of the pest took place seriously only during the formation of the current crop and the Santos market will this year experience a new type of infected coffee, which will undoubtedly upset its calculations. The percentage of coffee attacked in the infested zones is very great. As much as 60 per cent to 80 per cent of a hand-ful of Campinas coffee has proved to be infested and consequently useless for marketing purposes under existing types. The zones infested with the pests possess over 80,000,000 trees, and according to official calculation 10 per cent to 20 per cent of the total crops of these zones will be lost.

The Coffee Defence Service has already inspected all the coffee zones of the States totalling 104 Municipalities, 25 of which were found to be infected. There are zones in which 50 per cent and over of the coffee picked has been lost. The pest has also been found in the States of Parana, Minas Geraes and Rio de Janeiro.

Carried by the Wind. The manner in which the pest is now spreading is a very serious matter. It can be propagated by the mere carriage of infected coffee through clean districts by empty bags, by samples, and even by wind, and the extent to which it has spread from the centre where it has existed for many years (Campinas) to the surrounding districts and the whole of the North Western Railway zones, shows the seriousness of its effects. There are other Sao Paulo zones more or less affected, as well as the states of Minas and Rio de Janeiro, but the manner in which the Sao Paulo Government is combating it makes us confident that its destructiveness will soon be reduced to a minimum. The Government of Sao Paulo is acting independently, irrespective of any help from the federal Government, and its activities are, consequently, confined entirely to its native state.

The danger consequently that lies before the coffee industry is not the possibility of propagation of the pest within the borders of the State, but in the Minas and Rio de Janeiro producing zones, where the scientific treatment and cultivation of coffee are conspicuous by their absence. Unless these two States follow the example of their southern sister, their coffee industry will be threatened with destruction. The State of Sao Paulo, we understand, will take severe steps to prevent contaminated coffee from other States from crossing its borders on its way to Santos, which will be a severe blow to the south of Minas planters.

Like most of the Coffee Market interests here and abroad we deprecated the reports on the effects of the pest, but we are now in a position to appreciate its seriousness and consequently we strike

the note of warning. As a matter of fact it is difficult to measure the seriousness of the sudden and rapid spread of the pest without a close and practical investigation, and our own experience satisfies us in that respect.

The Coffee Defence Service has not only its own scientific delegates distributed all over the State to teach planters to protect their coffee from the pest, but issues printed instructions, booklets, illustrations chemicals, instruments, etc., to help them in their anxious task. At one time it was considered necessary to destroy the trees in the infected zones by burning them *en masse*, but the scientific methods adopted by the service have rendered this sacrifice, which would mean ruin to many planters, unnecessary.

Only Disinfected Bags Allowed. One of the measures adopted is the disinfection of empty coffee bags. No bag will be allowed to circulate within the State or to be brought in from other States without being thoroughly disinfected. Another measure is the prohibition of the transport in all districts of seeds new plants and twigs with the fruit or seed. Seeds, new plants, etc., can be received in one district only from another not infected ; but the Coffee Defence Service is of the opinion that planters should refrain for the time being from importing into their own property seeds, etc., from any other district or even fazenda.

We may add that, although the plague is a serious factor and could threaten to ruin the whole of the Brazilian coffee industry, so far as the State of Sao Paulo is concerned the danger will be overcome by the intelligent and drastic measures adopted by its Government.

The disaster that would befall Brazil were its coffee industry to be destroyed is unpleasant to think of, so that no sacrifice should be measured.—“*Tea and Coffee Trade Journal.*”

The Planters' Chronicle

Recognised as the Official Organ of the U. P. S. I., Incorporated

Secretary's Registered Telegraphic Address "UPASI," MADRAS.

Mr. EDWIN VINCENT.—Managing Editor, Coimbatore,

Telegraphic Address:—"CHRONICLE," Coimbatore.

VOL XX No 12.]

MARCH, 21st 1925

[PRICE As 8.

CONTENTS.

	PAGE		PAGE.
Advances to Labour	... 191	Coorg Planters' Assn....	... 194
The Mercantile Bank of India Ltd.	... 192	District Notes	... 197
Travancore Combined	... 192	Kullakumby	... 198
Planters' Association	... 192	Shevaroy Planters' Assn.	... 198
		Letters to the Editor	... 200

PRICE OF "A" COFFEE.

BY CABLE—LONDON, 20th March, 1925.

162s./—per cwt Market Flat.

ADVANCES TO LABOUR.

Mr. Aylmer Martin writes us as follows:—

Up to a few years ago I was certain that it was necessary to make advances to enable coolies to pay off debts in their villages, and as earnest money. Since then, the position has undergone important changes. Ceylon no longer pays advances.

Penal legislation, or at any rate penal clauses in Acts now relied upon, will be abolished after 31st March 1926. The amount of money poured into the villages in the way of advances and good money earned by coolies, must have modified indebtedness, and the good faith of employers is so firmly established, that the customary earnest money has no *raison d'être*. I am out of touch with the villages now. I suggest that the Director of the U.P.A.S.I. Labour Department through his Superintendents and Agents should make an enquiry as to whether the time has now come when the progressive step may be taken of stopping advances altogether. Pay for the days occupied in travelling and way expenses from villages to Estates and vice versa would have to be paid. This definite item of expenditure instead of the unknown quantity which the risk of advances entails, I think would be welcomed by Proprietors. Superintendents would be relieved of much anxiety and trouble. The Labour Department could turn its attention to helping recruiting, more than can now be done, and its unpleasant duty of dealing with defaulters would soon completely cease.

For such benefits it is reasonable to hope that all Planters would combine to abolish advances.

THE MERCANTILE BANK OF INDIA LIMITED.

The Madras Branch have received the following telegram from the London office of the Mercantile Bank of India Limited.

"Final dividend declared less Income Tax of 8 percent making 16% for the year. Amount carried forward £ 1,50,000/-"
 "Carried to Reserve £ 50,000/-"

TRAVANCORE COMBINED PLANTERS' ASSOCIATION.

Minutes of 11th Annual Meeting held in the Quilon Club on Saturday 7th March 1925.

Present:—Messrs. A. J. Wright, Chairman (Kanan Devan Hills, Planters' Association). J. Mackie (Planting Member of the Travancore Legislative Council), J. R. Vincent (Mundakavam Planters' Association), Eric Hall (South Travancore Planters' Association) W. A. J. Milner (General Travancore Planters' Association), and L. J. T. Polgreen (Honorary Secretary).

Visitor.—Mr R. Lord.

Notice calling the meeting was read and the agenda was as follows:—

Minutes of last Meeting.

Honorary Secretary's Report and submission of accounts.
 Income Tax.

Planting Member of Travancore Legislative Council.

Subjects for Sri Mulam.

Correspondence.

Election of Office Bearers for 1925.

Any other business brought forward.

The minutes of the meeting of 23rd February 1924 were confirmed.

The Honorary Secretary read his report for the year as follows:—

Honorary Secretary's Report for 1925.

GENTLEMEN,

This constitutes the 11th Annual Meeting of the Association the membership of which is now ten, Messrs. The Madura Co., Ltd.

having joined during the year. The Accounts, kindly audited by Mr. Newman, are before you and copies have as usual been circulated to all members.

The subscription for the year was reduced to Re. 1. by a resolution passed at the last Annual Meeting and this subscription together with the interest allowed on the deposit and current accounts, would have covered the expenses had it not been for the unusual expenditure on telegrams, the reason which I explain below.

The activities of the Association during the past twelve months have been mainly confined to income-tax, particularly in regard to the products of Edavagai lands. The recommendations of the Select Committee appointed recently to report on the proposed amendments to the Income Tax Regulation have passed the first reading in the Legislative Council and it is fairly safe to assume that the amended regulation will definitely exempt from income tax the profits of agricultural products derived from Edavagai lands. The Travancore High Court have not yet given a ruling on the interpretation of the existing regulation in this respect, but the fact that the Select Committee's recommendation has been approved by the Legislative Council makes the conclusion that this Council did not intend any other interpretation to be put on the relative section now in force a logical one. Members have been furnished with full information of the circumstances which have led up to this reference to the High Court and a resolution is to be put forward at this meeting that the Association should contribute towards the cost of representing the case of the assesseees. The subject is on the agenda and it is therefore unnecessary for me to comment further thereon.

The expenditure on telegrams represents the cost of cabling to the South Indian Association in London the position in regard to the taxation of the profits of rubber grown on Edavagai lands. This cable was sent at the request of the Secretary U. P. A. S. I. to whom the South Indian Association first referred. The U.P.A.S.I. offered to meet the cost of the cable and the Secretary's letter will be read to the meeting. I have left the item on the assumption that, as only Estates in Travancore are affected, the meeting will agree to the cost being borne by this Association.

Our thanks are due to Mr. F. G. Millar, Honorary Secretary of the South Travancore Planters Association, who represented this Association at the meeting of the South Indian Planters' Benevolent Fund (of which the Association is first patron) at Bangalore in October last.

This, Gentlemen, completes my report and I beg to tender my resignation.

The report and accounts were adopted on the motion of Mr Vincent seconded by Mr. Milner. A vote of thanks was accorded to the Honorary Secretary for his work during the year.

Income Tax. This was discussed in connection with the products of Edavagai lands. Mr. Vincent proposed, and Mr. Milner seconded, that Rs. 500 be given from the funds of the Association towards the cost of the test case now before the High Court. This was carried.

Planting Member of Travancore Legislative Council. A hearty vote of thanks to Mr. Mackie for his services in this respect was carried unanimously, on a motion from the chair.

It was decided that the Association would give all possible support to the nomination of Mr. J. B. Cook as Mr. Mackie's successor.

Subjects for Sri Mulam were discussed and correspondence considered

The Chairman then tendered his resignation and was accorded a vote of thanks.

Office Bearers for 1925. Mr. A. J. Wright was re-elected Chairman, Mr. W. A. J. Milner was elected vice-Chairman, and Mr. L. J. T. Polgreen was re-elected Honorary Secretary.

There being no other business the meeting then terminated.

L. J. T. POLGREEN,
Hon Secretary.

COORG PLANTERS' ASSOCIATION.

Proceedings of a Quarterly General Meeting, held at the Bamboo Club on Thursday March 1925 at 10-30 p. m.

Present. Messrs. P. G. Tipping, (Chairman), S. P. Raymond, Lt. Colonel W. B. Bucknall, G. R. Pearse, F. W. Richardson, C. B. Cunningham, Major R. H. B. Harper, A. H. Jackson, G. C. Maclean, F. W. Gerrard, N. R. Lee, W. R. Wright, J. O. F. Mauric, H. Jackson, J. S. H. Morgan, J. B. Reid, A. E. J. Nicolls, D. C. Mahon, F. Macrae, F. Pettingill, and A. F. Magniac, (Hon. Secretary.)

Visitors Messrs. F. H. Winterbotham, and D. J. Duncan.

Notice calling the Meeting was read.

Minutes of last Quarterly Meeting were read and confirmed.

Empire Planters' Club in London. The Hon. Secretary read a circular letter from Mr. K. G. MacKenzie, together with a preliminary prospectus, regarding the scheme for an Empire Planters' Club in London. Proposed that copies of this letter and prospectus should be obtained from Mr. MacKenzie, and circulated to all Members of the U. P. A. S. I.

Repeal of Act XIII of 1859. The Chairman stated that he had put in a resolution which would come up before the Coorg Legislative Council, at the coming Session, with regard to a law to take the place of Act XIII. Mr. Macrae proposed that a Sub-Committee of 5 to include the Chairman and Honorary Secretary be appointed by ballot, to enquire into and make suggestions with regard to a suitable law or otherwise, to take the place of Act XIII, the repeal of which is to take place from April 1st, 1926, and to report at the next General Meeting, the result of their deliberations, also that the Coorg Landholders Association be asked to elect an equal number of their Members to sit on this Committee. Seconded by Colonel Bucknall, and carried. Proposed by Mr. Macrae, and seconded by the Chairman that the Honorary Secretary should write to the Mysore Planters' Association, and ask for their views on the replacement of this Act. (Carried).

A Paid Secretary. Mr. Maurice having withdrawn his resolution before the Meeting, with regard to a paid Secretary for the Association, Colonel Bucknall proposed the following amendment :— That at the end of each year a proposition be put up to enable the Association to vote such a sum up to Rs. 100 per mensem, as the Meeting consider convenient, as an honorarium to the Hon. Secretary. Seconded by Mr. Maurice, and carried unanimously.

The Honorary Secretary having pointed out that the present income would be insufficient to meet this additional expenditure, Mr. Macrae proposed, and the Chairman seconded that "In order to enable the Association to put this resolution into force, it would be necessary to put forward a resolution to raise the amount, and to discuss at the next Meeting the present 2 as per acre law, and to pass or reject an increase of this rate, notice to be given to all members.

The Planters' Dance at the U.P.A.S.I. General Meeting. There was some discussion on the expenditure involved both to Delegates

and other Planters attending the dance given during Conference Week in Bangalore.

Mr. Maurice proposed and the Chairman seconded that if the Executive Committee consider it necessary to give a dance to the whole of Bangalore during Conference Week, the amount payable by Delegates should be limited to 25/. single, and 40/. married, and the remainder be paid by the U.P.A.S I. (Carried).

The British Empire Exhibition. After some discussion, it was resolved that this Association is of opinion that at this late date nothing useful can be now done, it was decided to let the matter drop.

New Members. The following were elected by ballot as Personal Members:— Messrs. G. P. White; E. Krohn; C. L. J. Humphreys; and J. B. Reid.

Correspondence. Read letter from Sub-Postmaster Mercara, with reference to changing the hours of registration of letters and parcels.

Read letter from Commissioner of Coorg, regarding notice of Treasury holidays, and Treasury hours on last working days of month.

Regarding Cattle Trespass on public roads, and in Estates,

Read extracts from the Taxation Enquiry Committee Questionnaire.

S. I. P. Benevolent Fund. The Chairman gave the total subscribed for this year, and hoped that those who had subscribed last year, and had not done so this, would pay in their subscriptions before the end of the month.

General. The Chairman spoke on the subject of adulteration of manures. Certain pamphlets comparing tea and coffee were read to the Meeting. The Hon. Secretary was instructed to forward them to the secretary U. P. A. S. I., and ask him to obtain further information as to their origin if it was possible.

The Chairman announced his resignation, as he was shortly going Home, and Honorary Secretary was instructed to ask Mr. Newcome if he would consent to act in the meantime, until the next Annual General Meeting.

With a vote of thanks to the Chairman and the Honorary Secretary, the proceedings terminated.

P. G. TIPPING,

Chairman.

A. F. MAGNIAC,

Honorary Secretary.

DISTRICT NOTES.

THE NILGIRIS.

The Programme for the Planters' Week in Ooty is now out, and proves a most attractive one. Every waking hour of the 168 is to be fully occupied, and none will be able to complain of monotony during the eventful period. Mr Murphy's public spirit is much appreciated; and the response to his sporting invitation to a Ball on the 24th is likely to try the utmost capacity of spacious Woodside. Unqualified success is already assured, for even the "has beens" are now assiduously practising the new steps for the festive occasion.

The following Time Table of UP and DOWN trains will it is hoped be found useful to those who will be visiting Ooty this month:—

UP TRAINS.

Departure from			Arrival at
Metapalayam	6 A. M.	...	Ootacamund 11 A. M.
Metapalayam	8-45 A.M.	...	do. 12-58 P. M.
Coonoor (Local)	8 A. M.	...	do. 9-35 A. M.
Metapalayam	10-15 A. M.	...	do. 2-45 P. M.
Coonoor (Local)	6 P. M.	...	do. 7-40 P. M.

DOWN TRAINS.

Ootacamund (Local)	8-20 A. M.	...	Coonoor	9-45 A. M.
do.	10-45 A. M.	...	Metapalayam	2-50 P. M.
do.	1-20 P. M.	...	do.	5-10 P. M.
do.	2-5 P. M.	...	do.	5-40 P. M.
do.	(Local) 6-20 P. M.	...	Coonoor	7-40 P. M.

Another of the time honoured amenities of Ooty has vanished. The very useful daily mid-day gun will be much missed by visitors this season. This is one of the inexpensive conveniences that has come under the axe of the so-called Retrenchment Scheme. After many scathing comments by the public the gun has been restored for one day in the week, and on Saturdays only is the welcome boom now heard. While the petty charge for firing the daily gun has been docked, the local Municipality declares a Prosperity Budget with a lakh of rupees in excess of its practical needs, and extra Ministers are being given lessons in Self-Government at a cost of about Rs. 6,000, each per month! Is further comment necessary?

KULLAKUMBY.

The cold weather is a thing of the past now, the spring flush is on us, and the sound of Engines puffing away well into the night testify that Estates are being kept pretty busy. This last dollop of rain will cheer up many as we were begining to feel the want of a bit of moisture especially the pruned areas.

Those who have coffee to deal with will perhaps wish this rain had kept off a bit longer.

The Planters' Week in Ooty is being looked forward to by some and may it prove as great a success as last year.

SHEVAROY PLANTERS' ASSOCIATION.

Proceedings of an Extraordinary General Meeting of the Shevaroy Planters' Association (Incorporated) held at the Victoria Rooms, Yercaud, on Thursday the 5th March 1925 at 2 p m

Members Present.—Mrs. M. S. R. Short, Capt. E. H. A. Travers Drapes (Chairman) Messrs. A. R. D'Silva, C. Rahm, W. Rahm, W. J. A. Lechler, N. M. Hight, C. D. Ryle, W. A. Rahm, C. L. Hight, H. S. Dyer, (Arcadia).

Utsitors —Messrs. E. H. Gilby and J. Singaram.

Agenda.

1. Notice calling the meeting was read.
2. Read and confirmed Proceedings of the E. G. M. dated 30th January 1925.
3. Read and examined notice of alteration of U. P. A. S. I. Articles of Association dated 22nd December 1924, and 15th February 1925, calling an Extraordinary General Meeting of the U. P. A. S. I. at Ooty for 25th March 1925, also notice of General Committee Meeting of the above Association for same day.

Resolved "That the Secretary U. P. A. S. I. be asked to arrange for a substitute to represent the S.P.A. at the E.G.M. of the U.P.A.S.I. to be held on 25th March 1925 to vote in favour of all the amendments proposed."

Carried.

Correspondence.

1. *Repeal of Act XIII.*—Read letter from S. P. A. dated 7th February 1925, and replies Nos. 8179 and 8195 dated 9th and 10th February 1925, from Secretary U. P. A. S. I.

2. *Inter District Tennis Tournament.*—Read two letters from Mr. Hawkins, to Honorary Secretary U. P. A. dated 7th and 14th February 1925, enclosing Inter District Tennis Tournament Rules 1925 also to S. P. A. letter No. 153/25 dated 24th February 1925, to the President U. P. A. S. I. Sports Club.

Proposed by Mr. C. D. Ryle and Seconded by Mr. W. I. A. Lechler.

"That this Association join the U. P. A. S. I. Sports Club for the year ending 31st March 1925."

Carried.

3. *Free Wharfage.* Read S. P. A. letter No. 224/25 dated 13th January 1925, to the Agent South Indian Railway Co, Trichy and the Agent's reply No. A. T. 1515/37 dated 26th February 1925 refusing to allow free time for wharfage of goods coming for removal.

Resolved "That the Honorary Secretary be requested to place before the U. P. A. S. I. the question of free time for wharfage as the Agent's reply does not explain how to overcome the difficulty of producing Railway Receipts in time to obviate demurrage."

Carried.

Out Agency.—Read S. P. A. letter No. 225/25 dated 13th January 1925 to the Agent South Indian Railway, Trichy, re-opening an out Agency in Yercaud.

Read Agent's reply No. A. T. 1273/1/170 dated 16th February 1925, that the Parcels delivery contract system will be re-introduced with effect from 1st March 1925.

Limiting Advances.—This subject was informally discussed.

With a vote of thanks to the chair the Meeting terminated.

E. H. A. TRAVERS DRAPES
Chairman.

LETTERS TO THE EDITOR.

(The Planters' Chronicle is not responsible for the opinions of its correspondents).

Dear Sir,

Planters' Cricket in Ootacamund.

Mr. Whitton has asked me to inform you, for the purpose of publication in the Chronicle, that Mr. Kenneth Langley of Calicut has been kind enough again to present a bat. Last year it was for presentation to the Planter of the Wynaad XI who made the biggest score in the match against the Anamalais. This year it is to be won by the Planter who makes the highest score in the M. C. C. match.

It is unnecessary for me to say how much the members of the U. P. A. S. I. Sports Club appreciate these sporting gifts, and how much they add to the interest of our annual meet.

Yours faithfully,

G. W. FULCHER, *Hon. Secretary.*

Dear Sir,

The Wynaad Planters' Association Meeting.

I enclose copy of a letter addressed to the Honorary Secretary, Wynaad Planters' Association ref., the Proceedings of the Ordinary General Meeting published in your issue of 14th instant. I would be obliged if you would publish this letter in your next.

(ENCLOSURE.)

Arrapetta Estate, Meppadi Post.

19th March 1925.

Honorary Secretary,

Wynaad Planters' Association,

Nellimunda Estate.

Dear Sir,

In the proceedings of the Ordinary General Meeting of our Association published in the Planters' Chronicle of 14th March, under item Correspondence and any other competent business, you report me as stating that I had taken the matter of an appeal case which I had lost, to the Collector, who had reversed the judgment. What I said was

"that I was putting in a revision petition before the

"District Magistrate to endeavour to get the appeal

"judgment reversed."

At the time I spoke the revision petition had not been presented

I have asked the Editor of the Planters' Chronicle to publish this letter in the next issue of the Planters' Chronicle.

Yours faithfully,

EDMUND E. EYRE

The Planters' Chronicle.

Recognised as the Official Organ of the U. P. A. S. I., Incorporated

Secretary's Registered Telegraphic Address "UPASI," MADRAS.

Mr. EDWIN VINCENT.—Managing Editor, Coimbatore,

Telegraphic Address—"CHRONICLE," Coimbatore.

VOL XX No. 13.]

MARCH, 28TH 1925.

[PRICE AS 8.]

CONTENTS.

	PAGE.		PAGE.
Monthly Market Notes by		District Notes	... 210
Eothen ...	201	South Travancore	... 212
Planter's Week ...	204	Peermade	... 213
Coffee ...	207	Another Shoot	... 214

PRICE OF "A" COFFEE.

BY CABLE LONDON, 27th March, 1925.

155a./—per cwt. Market Dull.

MONTHLY MARKET NOTES, BY EOTHEN.

London, March 12, 1925.

Tea. There is no denying that the industry has been in the dumps during the past month. It is true that the strenuous efforts of the Indian Tea Association and of the Ceylon Association, culminating in the limitation of offerings at the weekly auctions, have had some effect, but the old and wise shake their heads at the artificial market obtained by keeping Indian offerings down to 25,000 packages weekly, Ceylon being allowed 12,500 packages each Tuesday. It is understood that what the periodical *John Bull* called "this pretty little game" will be kept up until Easter. The arrangement began with the sales of February 23rd and passed

28 916/26

almost unnoticed in the press, which was rather surprising. Even with the decreased offerings, some of the auctions were distinctly depressing, as was also the quality of a good deal of the tea offered. Therein, of course, lies the explanation of the poor prices, such poor stuff, sent off in November-December in the hope of fetching wonderful prices, is now being dumped on the glutted market, with the result that you know. The inevitable reaction has occurred and it is of no use blinking the fact.

Sir, Charles Higham is off again to America to boom tea. He claims that 3,000,000 lbs. more of tea was sold in the U.S.A. in 1924 than in any previous year. Good news; but after all the money which has been and is being spent in America on Tea propaganda we shall want to see a bigger increase than that, this year.

The following are the average prices to date,

save for Mondays and Tuesday's sales :

	Week Ended	Current	Jan. 1 to	Jan. 1 to
	March 6	Week	Date	Date
	1925.	1924.	1925.	1924.
Northern				
India	1/5.79d.	1/5.42d.	1/7.53d.	1/5.72d.
Southern				
India	1/5.79d.	1/5.69d.	1/6.94d.	1/5.96d.
Ceylon	1/7.29d.	1/7.98d.	1/8.59d.	1/7.74d.
Java	1/0.10d.	1/1.82d.	1/2 61d.	1/3 04d.

This week's prices will cause the average to be down still lower. It will be noted that with the exception of Java, prices are still higher than at the same date last year.

The "London only" stock figures at February 28th stood at 219,262,044 lbs., of which 148,726,350 lbs. was Indian.

The tone at the Ceylon auction on Tuesday was distinctly better than that of the Indian on Monday. Commonest teas, however, were a 1d. to 1½d down. Leaf grades for export were in fair demand. With regard to the future, attention may be drawn to the

remarks of a well known firm of brokers, who state that the disappointing quality of the later 1924 teas compared with those of 1923 must be viewed with some concern, and it is imperative that every effort should be made to improve the quality of the 1925 crop, both as regards style of leaf and character of liquor, even at some loss of output. Given the desired improvement in manufacture, there is no reason why the current year should not be as prosperous as the last.

Rubber. After hanging fire for some time (to the hardly-veiled dismay of various rubber correspondents) the rubber market has come to life once more, topping one and seven pence during the past ten days. Simultaneously the London stocks have been reduced to a remarkably small figure, viz. 21,639 tons as compared with 55,975 tons at the same date last year, and 67,769 tons in 1923. Inasmuch as this London stock is popularly supposed to be in the hands of two dealers, and some of it is not immediately available, being held against forward contracts, obviously London is working on a low margin. Yet it is of no use to consider the London stock figure as a market barometer. It is a market barometer no longer, owing to the American habit of dealing direct with Singapore, also owing to the forward contracts which have enabled a goodly proportion of transatlantic manufacturers to cover their requirements for some months ahead. Moreover, owing to their annoyance over the alleged "wangling" by Mincing Lane of the 5 per cent. extra allowance, instead of the 10 per cent., which the Americans confidently expected would be released on February 1st, our best customers are undeniably doing their utmost to avoid touching the London market.

A few days ago, when rubber was around or just under eighteen-pence Mr. A. A. Baumann, a protagonist for 14 years of a central selling scheme for rubber, started again the "selling cooperation" hare, by a letter to the *Times*. The *Times* City Editor, who loves having a dig at restriction, gave the idea his benediction, saying that if half the thought which had been devoted to restriction had been applied to a central selling scheme, it would have been all to the good of the industry, etc., etc. If the Rubber Growers' Association considered it inopportune to introduce central selling when rubber was 1/5d. or so in the closing months of 1924, it can hardly be supposed that, with rubber at 1/7d, the Association will deem it advisable to interfere at the present time.

A feature of the past month has been an increased demand from the continent, and high hopes are entertained that the European market is to become a more important factor in the future.

Spot prices continue to be at a premium as compared with forward, the shortage, if any, being expected to be felt during the next two or three months. It is devoutly hoped that an average of 1/6d. will be obtained for the rest of the year, thereby affording the opportunity to our over-burdened heavily-restricted companies to bring down their costs of production owing to being allowed a ten per cent. increase in their exportable quota, perhaps for two quarters in succession. Only by keeping the price above 1/6d. and thus affording these releases can the necessary supplies be obtained to meet the world's increasing consumption, say the optimists. We shall see; but the factor of increased production in the D. E. I. must not be overlooked.

The sporting decision of British rubber-producing companies in Southern India to continue voluntary restriction has been favourably commented upon here.

The American demand lately has, although of a rather intermittent character, been better than usual. America has, however, been making large purchases for direct shipment from Singapore which is a rather uncertain market for the moment possibly owing to speculation on Chinese account. It is pointed out that out of the total shipments from Malaya for last month of 22,342 tons, only about 3,500 tons are coming to this country, while over 14,000 tons are going to the United States. Under the increased Bank rate the carrying of stocks is obviously more costly, but these are now at well under the normal.

Coffee. For the third month in succession coffee deliveries in Europe and the States shewed a falling off of over 300,000 bags as compared with those of last season, thus demonstrating what Messrs. James Cook & Company in their circular aptly describe as the "resistance opposed by buyers to Brazil's dictation of prices". On the other hand receipts in Rio and Santos during February fell 448,000 bags short of those of the same month last year whilst arrivals of "milds" were also 110,000 bags smaller. Those were the factors which contributed to a reduction of 100,000 bags in the world's visible supply which, according to Messrs. Daring & Zoon now stands at 5,156,000 bags.

Buying abstention seems to have produced some effect on Brazil prices which declined about 8/-per cwt. during February, but quite recently there seems to be a little more enquiry. Offerings at auction, mainly of Costa Rican, African and Indian descriptions, have been

plentiful and thus prices have been lower. Costa Rican sorts, which have attained a very fancy level, fell something like 15/- @ 20/- per cwt. but other kinds, the prices for which were less stilted, only show a drop of some 10/- per cwt. Last week a better tone was in evidence and the bulk of the offerings found buyers often at rather better prices than the recent lowest.

The Tea and Coffee Trade Journal in a recent analysis of the situation foreshadowed an acute shortage of coffee in 1926. It says that the world has been used to having, until a few years back, a visible stock of coffee fluctuating between 10,000,000 and 13,000,000 bags. It is going to have on 1st July, 1925, 1,500,000 bags. There won't be any at all on 1st July, 1926. This is a very drastic view to take, but it arises out of the Journal's calculation which may be summarised as follows :-

Estimated stock, 1st July, 1925	...	1,759,000 bags.
Estimated crop of Sao Paulo, 1925-26	...	8,000,000 „
Estimated crop of Rio, Bahia, Victoria etc	...	3,500,000 „
Estimated crop of mllds	...	6,500,000 „
		19,759,000 „
Estimated consumption for 1925-26	...	21,000,000 „

Meaning no stocks whatever, 1st July 1926

The smaller February deliveries may have caused the framers of the above estimates to change their figures, but the prognostication, coming from such a source, is naturally well worth nothing.

It may also be noted that another American authority states that the coffee market is at present strong statistically, dull speculatively, and apathetic commercially.

PLANTERS' WEEK.

The Rugger Match

The long anticipated Rugger Match, the first to be played under the auspices of the U. P. A. S. I. Sports Club, took place at Ootacamund on Monday evening. The teams were as previously announced and a large crowd lined the ground when English led on "The Rest" followed by Stuart and his team of Anamallai planters. Considerable enthusiasm prevailed particularly as in spite of the odds being on the Anamallais, The Rest pressed hotly from the outset. The game was remarkably fast and although there was a good deal of midfield play, opened in favour of The Rest who appeared to get the ball more often than their opponents. It was arranged to play in short chukkers of 10 or 15 minutes each and at the end of the initial period The Rest were three points up from a try scored by English. This was the result of a fine piece of work by Shaw who handed on to Davis and thus made the opportunity for English to score. Davis failed with the kick.

In the second period the Anamallais asserted themselves but were pulled up for an infringement which led to their being again penned in. Stone who was playing magnificently for the Anamallais at full back eventually found touch with a fine kick. The Anamallais were the heavier pack but The Rest invariably got the ball from the scrums and were much surer in their handling. They were a more experienced lot but had not got youth on their side, with the result that the pace began to tell. The Anamallais should have scored on more than one occasion but for some bad fumbling and the three were particularly at fault with their passing. The Rest came again and only some fine tackling by Stone saved the Anamallais from being further behind. At the end of the second chukker the teams changed over and the second half saw the Anamallais continually pressing but failing to drive home their attacks. There was some fine kicking by the opposing backs and the Anamallais were gradually improving, getting the ball more often and tackling strongly. Still they did not look like scoring until well into the fourth and last chukker when after a fine kick by Stone, Stuart the Anamallai Captain, went over. To the surprise of most of us the try was not allowed but immediately afterwards Sladen brought the Score level. Harris made a very good attempt with the kick but failed to convert. Just on time when everything pointed to a drawn game Stone dropped a beautiful goal which the referee allowed only after consulting the touch judges and thus own the match for the Anamallais.

It was a fine game and very enjoyable to watch. The Anamallais have a young side, all absolute triers. Sladen, Simpson, Scovell and Dennys most caught the eye, Stone at full back showed class in

everything that he did and saved his side more than once. His dropped goal will long be remembered. For The Rest, English, Davis and Shaw were most prominent. Laird also showed up well and Peachey was always dangerous.

At the conclusion of the match. Mr. Gwynne, chairman of the U. P. A. S. I., made a short speech referring to the game and to the impartiality of the referee, Lieut. J. Stuart. He expressed the thanks of the community to Mr. G. A. Marsh who had given the very handsome trophy on view. That gracious little lady Mrs. Gwynne then presented the cup to the Anamallai Captain and Mr. Whitton calling for three cheers for Mrs. Gwynne, we came away well pleased with the first effort at inter-rugger. Later on after dinner at the club Mr. Lloyd of the Anamallais and Mr. English made speeches which were received with considerable enthusiasm. It was pointed out that this game was unique apart from its local importance inasmuch as it is probably the first time that serious rugger has been played at an elevation of 7,500 feet.—*Madras Mail*.

COFFEE.

Coffee and its position from the point of view of production and consumption is dealt with in a British and an American Journal both dated October, 1924. The former, *Imperial Commerce* discussed the coffee situation as seen from the British side and the latter *The Tea and Coffee Trade Journal* from the American side.

They agree that the people of Britain and British possessions are not coffee drinkers and that British possessions do not produce a large portion of the world's coffee, but they differ as to prospects for the future and they both refer to the exhibits at Wembley as illustrating to some extent the points they each make.

From the sources of information it would appear that the British Empire produces only about 2 per cent. of the coffee of the world and at the same time Great Britain, Canada and Australia are near the bottom of the list of coffee consumers. The consumption in Great Britain being reckoned at under 1 lb. per capita per annum, in striking contrast to the average consumption in the United States of America of 11 lb. per capita.

The use of coffee as a beverage in England dates back to about 1652, long before tea had found its way to that country, but tea has increased in popular favour and left coffee far behind.

Coffee is believed to have originated in the highlands of Abyssinia. During the latter part of the 17th and during the 18th centuries

it was introduced into Java, Jamaica, Martinique, and Brazil and since that time has been cultivated in nearly every portion of the tropics.

About the middle of the last century, Ceylon had a very flourishing coffee industry, producing over a million cwt. valued at $2\frac{1}{2}$ million pounds sterling. The ravages of the coffee leaf disease practically wiped out the coffee industry of Ceylon which has gradually been replaced by tea.

Coffee is an important industry in India where something like 210,000 acres are under cultivation to this crop, about half of which area is located in the native state of Mysore.

In Jamaica, coffee cultivation has been carried on for a long time but on a comparatively small scale. The Blue Mountain coffee of Jamaica is famous for its quality, which is indicated by the very high price it always commands in the market.

In British Guiana, also, coffee has been a crop of great importance, and at the present time there is probably something like 5,000 acres cultivated in that Colony. In all the islands of the Lesser Antilles coffee has in the past been of some importance, Dominica at one time having very extensive coffee plantations and shipping large quantities of coffee to the European markets.

In Malaya, also, very large areas of coffee were under cultivation previous to the introduction of Para Rubber, which has almost entirely superseded coffee there.

On the whole, it is estimated that coffee cultivation in the British Empire is on the decrease although in some places the area under cultivation remains fairly constant, as in India, and in others a very lively interest is being manifested in the development and extension of this crop as is seen in East Africa and Uganda.

In Kenya Province the area planted in coffee has nearly doubled in the last five years. The area in 1920 being given as 28,833 acres, and in 1923 as 52,249 acres while the production has risen in the same period from about 72,000 cwt. to over 90,000 cwt. and it is estimated that the newer plantings which are coming into bearing will more than double the output in the next five years.

In Uganda, extensive trials have been made with coffee as a crop and in 1923 it was estimated that about 41,000 cwt. was exported having a value of £ 1,08,000.

Only about one-third of the coffee used in Great Britain comes from sources of production within the Empire, the great source of

supply being Brazil. Of the coffee exported from India, Great Britain takes about one-third, about half of that from Jamaica, and about two-thirds of that from Kenya and Uganda.

Of the British Dominions, South Africa is the only one where coffee is used on a large scale, the per capita consumption being something over 4 lb. per annum.

The United States of America, using about 11 lbs. per capita. is the ultimate market for about half the world's total production.

With the very high rate of consumption in those countries where the use of coffee is very general and the slow rate of increase in other countries where this beverage has not found universal favour, it might be asked whether in view of the active development that is taking place in some parts of the Empire there is not grave danger of over-production.

In Ceylon a most flourishing and valuable coffee industry was practically wiped out by a fungus which attacked the leaves of the coffee tree. In every country where coffee is grown there are insect pests and fungoid diseases which take their toll of the crops, and if development proceeds more rapidly than the knowledge of how to control pests and diseases, there is always a likelihood of a serious check. Also many insect pests in a country where they are native may be only of minor importance but if introduced into a new locality where they may come under the influence of a new environment and in the absence of their natural enemies may develop to such an extent as even to result in the extermination of the crop.

The coffee berry borer, a minute beetle which lives in the pulp and seed of the coffee berry is widely distributed throughout East Africa and the Malayan district. Although a serious pest in these places, where it appears to be native, it has not prevented the successful cultivation of coffee nor does it seem to be interfering with the development of new areas under this crop. This insect has recently, however, made its appearance in Brazil where its ravages are causing the gravest concern, not only to coffee planters, but to Government as well. Coffee forms a large proportion of the exports of that country, in 1923 amounting to two hundred and twenty-nine million dollars, or 64 per cent. of the total.

For about five years past the coffee berry borer has been known to exist in certain states in Brazil but has not, until recently, attracted much attention. The districts now known to be infested contain some eighty million coffee trees, and it is calculated that the actual loss in crop within these areas will be from 10 per cent to 20 per cent. loss. Small samples of coffee which have been examined have shown as much as 60-80 per cent. loss. All known lines of investiga-

tion are being followed with the hope of finding some method of control but the outlook is serious, and shows how the introduction of a pest may suddenly interfere with production and threaten a shortage in a world's crop where formerly there had been a surplus.

In years gone by the Arabian coffee was most generally used in the coffee trade. Then followed Liberian, and at the present time these and two other species *Coffea robusta* and *C. stenophylla*, are all cultivated on a commercial scale. Each of these varieties has its peculiarities as to soil and climatic requirements, and they will probably be found to have special characteristics in the matter of resistance to pest and disease attacks.

These specific differences have been especially noticed in connection with the attacks of the coffee leaf-miner, the larva of a small moth which tunnels in the tissues of the coffee leaves. The Arabian coffee suffered very much from the attacks of this pest, while Liberian coffee, in the same localities was found to be almost free from them. Whether a choice of varieties will afford a means of combating coffee berry borer remains to be seen.—*H. A. B. in Tropical Agriculture.*

DISTRICT NOTES.

Shevaroya.

Coffee Prices, are round about Rs. 20-4-0 per struck bushel ex store, for Parchment Rs. 12 is the highest offer I have heard of for Strippings and Gleanings mixed, but most of us are holding out for more and we ought to get at least Rs 13 as the quality is very good. Kotagiri asks why there should be such a large difference in the prices at which Estates have sold their crops, Ofcourse there are certain Estates which owing to elevation and other factors cannot produce a heavy quality or suffer from a large proportion of blacks and these cannot expect top prices, but in some instances Planters are too ready to accept the first offer that comes along, especially if they have a big crop and this causes a serious slump in the local Market. It is generally the case on these Hills that prices reach their highest level about the middle of December, though there have been a few instances when a rise occurred later. If Planters would follow the example of our Kotagiri friends and make prices, to some extent, a topic of "conservation" (at least the Printer's Devil says they do) we should all fare better.

We certainly do not sell by the heaped bushel here, but for those who do it should be all right if they get a proportionately higher price.

Gallnuts. Rs. 20 per Kandagam (5 struck bushels) has been offered lately and there seems every prospect of a considerable rise as even men who do not ordinarily trade in these are very keen to get them. About 25 years ago it was a foregone conclusion that this produce would pay for the Khist on every Estate but prices have been so low and for some unknown reason the trees have failed to crop like they used to do, that most Planters have cut them out of their Coffee to make room for a more desirable kind of shade.

Oranges The blossom this year appears to have been a total failure over the major portion of the Hills, though the mildew, which unfortunately synchronises with the flowering, has not been as bad as it sometimes is.

Pests. Bug is showing only on a few branches here and there and the Monsoonish weather we have had recently ought to check it. A very good plan for mitigating this pest is, in addition to burning all Ants nests within view, to make the coolies when Pruning, probe all holes and crevices in the stem of the Coffee tree and if any Ants emerge, paint the hole liberally with tar. In most cases when Bug is bad and no Ants nest is visible it will be found that there is one in a Coffee stem which has escaped observation perhaps for years.

Social. There is not very much doing though Yercaud is nearly full up, but as 17 people from these Hills are leaving shortly for Europe I should think we cannot expect much this year. As a full account of the opening of the new Rifle Range has appeared in the "Madras Mail" an account of it here would be superfluous.

Weather. Instead of our usual thunderstorms in March or April we have had what appears to be a burst of the N. E. Monsoon, for 12th and 13th of this month broke with a thick mist and driving rain off and on the whole day and amounts varying from 75 cents to 4 inches have been registered. The blossom may therefore be expected to open about the 24th. The rain I reported in February brought out only the very forward spike and the flowers opened quite well.

Act XIII of 1859. The wording used by the Hon'ble the President when bringing forward the Repealing Bill in the Legislative Assembly is note-worthy. He said "That the Bill to repeal certain enactments whereby breaches of contract by labourers are made punishable under the Criminal Law.....be taken into consideration". If this is the purpose of the Bill I fail to see how it applies to act XIII of 1859 because Breach of Contract under this Act is NOT punishable with imprisonment. If the Labourer breaks his Contract all the Magistrate can do is to order its fulfilment or repayment of the advance, and there the matter ends as far as this Act is concerned. If the labourer fails to obey the Magistrate's order he is imprisoned for failure to comply with that order and not for the actual breach of contract.

SOUTH TRAVANCORE.

Although these notes are headed South Travancore, they really only relate to a small portion of that state, sometimes called by the impolite "Sleepy Hollow" but known to others as the Kalthuritty Valley. Until the writer can organise a series of correspondents in Poonmudi, Ashambo, and the Ranni Valley these notes are likely to be, for the present, of only parochial interest.

Before recording the Social life of the village, mention might be made of a Rubber Spraying demonstration which took place at Nagamally Estate on Wednesday 11th March. Mr. Ashplant motored with Mr. Lord from Quilon, while a number of local planters were present to watch operations. So efficient was the spraying that not only did the rubber trees become bathed in mist, but the enthusiastic assistants and spectators gradually took on the blue tinge of Bordeaux Mixture.

The ease with which a spraying pressure of 200lbs was developed in the small duplex Hayes Sprayers was remarkable and to those who have toiled with Knapsack Sprayers; spraying with this type of machine might almost be said to become a pleasure.

We had our usual monthly Tennis tournament at Kalthuritty Club on the 1st of March the results being:—

Men's singles (level) American tournament

1st Mr. A. P. D. Lodge with 39 points

2nd Mr. J. C. G. Glen with 32 points

Doubles Handicap (American)

1st. Mrs. Lodge and Mr. L. G. Knight (—3/6) = 28 points.

2nd Miss. Jodrell and Mr. A. H. White (+15) = 22 points.

On Saturday 14th we had the pleasure of a visit from Quilon the following making the journey Mr. and Mrs. J. L. Henderson: Messrs. Kirkby, Jacob, Polgreen, Dunn, Newman, and Parisot.

Unfortunately heavy rain fell at 4 p. m. and at one time tennis seemed out of the question; but the water on the courts drained off and with the help of "moppers up" the courts, though heavy, were playable. The Valley proved somewhat too strong for Quilon the results being.

Valley Club		Quilon.
Doubles		
Messrs. Lodge & Millar	beat	Messrs Kirkby & Jacob 6/3; 6/2.
" J. G. & T. G. Glen	" "	Henderson & Dunn 6/0; 6/3.
Singles		
" A. P. D. Lodge	" "	L. H. Jacob 6/1; 6/1.
" J. G. Glen	" "	R. Kirkby 6/1; 6/1.

The next morning the Club presented an animated appearance, practically all the valleyites and their Quilon friends being present.

A level doubles, and Handicap American Tournament had been arranged. Messrs. Lodge and Millar winning the former, unfortunately rain interfered with the play and the Handicap doubles could not be completed.

The Members sat down to an excellent lunch arranged by Mrs. Lodge. After several speeches had been made, the members and their guests settled down to bridge, or danced to the merry strains of Mr. Dunning's gramophone. Tea, kindly provided by Mr. Hoare, terminated a very enjoyable day.

Weather, which might be characterised as monsoonish has been in evidence during the last ten days and people are wondering whether it is the end of the North-East or beginning of the South West! In any case the wet and misty conditions are unusual for March; but the rains are giving the rubber and tea crops a welcome stimulus.

PEERMADE.

Socially, we are having quite a "season" which began with a most enjoyable tennis tournament on New Year's day at Glenmary. Other notable events since have been a house-warming dinner and dance at Carady Goody; the Goldie Cup at Vandiperiyar club when Peermade won after a very well contested match; several small "hops" at both clubs and, last but not least, the Richardson & Cochin tennis cups, both played for at Peermade Club on March 7th and resulting in a victory for the visitors in both cases.

A very successful S. P. M. R. camp was held at Newlands from February 22nd to March 1st, which one can only fittingly describe as the climax of much excellent spade work put in by all concerned, especially the C. Os., N. C. Os. and the S. S. I. We may, without boasting, say we have a keen and efficient patrol which would be completely "mobile" if an aeroplane could be added to our equipment.

Last year was of course a record one for the district both for crops and prices and this year has opened in a fashion that promises almost as well. It is true that the Tea market has temporarily collapsed rather unexpectedly but, as far as we are concerned, the very heavy monsoon is to be held chiefly responsible for the very rapid subsequent growth and consequent lack of quality of our September and October teas which are now being sold. Once these are disposed of better prices may be confidently expected. We are not down hearted.

ANOTHER SHOOT.

With apologies to L. N. Vide the Chronicle of 7th March 1925.

The other day we shot at duck
 With little skill but average luck,
 Would that my Muse with fitting rhyme
 Could celebrate our deeds sublime !
 Ah ! had I but the frenzied pen
 Of that rare trumpeter L. N.,
 I'd raise a most tremendous toot,
 But as I've not our humble shoot
 In sporting annals takes the back-row,
 Caret, alas, quia vate sacro.

J. K. K.

The Planters' Chronicle.

Recognised as the Official Organ of the U. P. A. S. I., Incorporated
Secretary's Registered Telegraphic Address "UPASI," MADRAS.

Mr. EDWIN VINCENT.— *Managing Editor, Coimbatore,*
Telegraphic Address — "CHRONICLE," Coimbatore.

VOL XX No. 14]

APRIL, 4TH 1925.

[PRICE AS 8.

CONTENTS.

	PAGE.		PAGE.
U.P.A.S.I. Annual Meeting...	215	Suggestion for increasing the Efficiency of Estate Labour	... 229
United Planters' Association of Southern India Meeting of the General Committee...	215	Letters to the Editor	... 231
The Rubber Restriction Scheme	... 228	U. P. A. S. I. Statistics ship- ment of South Indian Produce during Feb. 1924...	232

PRICE OF "A" COFFEE.

By CABLE LONDON, 3rd April, 1925.

155s./—per cwt. Market Dull.

U. P. A. S. I. ANNUAL MEETING.

We are asked to announce that at the Executive Committee Meeting held at Ootacamund on the 24th ulto it was resolved that the 31st Annual Meeting of the United Planters' Association of Southern India should be held at Bangalore commencing on Monday August 17th 1925

UNITED PLANTERS' ASSOCIATION OF SOUTHERN INDIA MEETING OF THE GENERAL COMMITTEE.

A Meeting of the General Committee of the United Planters' Association of Southern India was held at the Masonic Hall, Ootacamund, on Wednesday the 25th March 1925.

Present:—

Mr. J. A. Gwynne	...	Chairman,
Captain E. G. Windle	...	Planting Member.
Mr. J. A. Richardson	...	Member Executive Committee.
Major C. H. Brock	...	Director of Labour Department
Mr. H. Waddington	...	Secretary.

and the following Associations

Anamalais	represented by Mr. C. K. Pittock
Central Travancore	„ Messrs. W. A. J. Milner and E. C. Sylvester.
Coorg	„ Mr. L. Newcome.
Kanen Devans	„ Mr. J. S. B. Wallace.
Mundakayam	„ Mr. M. S. Calderwood.
Mysore	„ Mr. W. H. Reed.
Nilgiris	„ Captain E. G. Windle.
Nilgiri-Wynaad	„ Messrs. J. Aird & R. Fowke.
South Travancore	„ Mr. E. Lord.
Wynaad	„ Mr. B. M. Behr.
West Coast	„ Mr. M. S. Calderwood.

*Visitor:—*Mr. P. H. Carpenter, Chief Scientific Officer to the Indian Tea Association.

Under instructions from the Chairman the Secretary read the Notice calling the meeting.

The proceeding of the last meeting held at Bangalore on the 23rd October 1924 were read and confirmed.

The Budget 1925—1926.

Copies of the revised Budget were laid on the table. Under instructions from the Chairman the Secretary explained the alterations which had been made since the Budget was published in January owing to more correct figures regarding acreage and details of expenditure as recommended by the Control Committees having since been received.

The Secretary and the Director of the Labour Department having answered certain questions put by members, the Chairman proposed,

“That the Budget for 1925—1926 as set out in statement dated 16th March be adopted”. Carried unanimously,

Upasi Buying Agency.

The Chairman explained that the Executive Committee had at a meeting held in January passed certain additions to the Rules of the Buying Agency and now wished them confirmed by the General Committee, he therefore proposed from the Chair:—

1. To add to Rule IV the following words.

“and all renewals shall date from the expiry of the previous ticket, in no case shall any allowance be made for absence on leave or any ticket be issued for a period of less than 12 months.”

2. To add a new rule.

(X). In no case shall the Secretary act as the agent of a member in any business connected with the Agency. Carried unanimously.

Upasi Sports Club.

The Chairman said that under Rule 5 of the Sports Club Rules it is laid down that the President and Committee of four shall be elected at the time of the Upasi Annual Meeting. At a meeting of the Executive Committee held on the 26th January the President, Mr. Whitton, asked that the election of the President and committee should take place at the time of the Planters' week each year. To this the Executive Committee agreed but the alteration in the Rule must be confirmed by the General Committee if they agree to the alteration being made, he therefore moved from the Chair.

“That in Rule 5 of the U. P. A. S. I. Sports Club the words ‘Planters' Week’ shall be substituted for the words ‘Annual Meeting of the U. P. A. S. I.’”

Carried unanimously.

Employees Provident Fund.

The Chairman explained that at the last Meeting of the General Committee the following resolution was carried unanimously:—

“That this meeting consider the advisability of establishing a provident fund for the European employees of the U. P. A. S. I. and request the Executive Committee to take up the matter at an early date”. In view of that resolution the Executive Committee at its next meeting took up the matter and have had a scheme prepared which he would ask Major Brock to explain.

Major Brock said that the broad lines of the scheme were that all European employees should pay into a Provident Fund 10 per cent. of their Salaries but not of any allowances they might be drawing and that the U. P. A. S. I. would add a similar amount to the Fund which should be invested. In the event of any employee leaving the services of the Association before he had completed ten years service, then all contributions made by such an employee and accumulated interest thereon would be paid over to him, but if an employee served ten and less than 15 years he should be entitled to contributions made with accumulated interest and a bonus equal to 50 per cent. of the amount, if employee left after 15 years service the bonus should be 100 per cent. and an additional small bonus might be granted at the discretion of the Executive Committee for each years service above 15.

Mr. Pittock stated that in the case of many Provident Funds the employer contributed less than rupee for rupee of the employees contribution, but considering that the servants of the U. P. A. S. I. had no opportunity of earning either bonuses or commissions he considered they should be more generous than if they were dealing with men who did get extra over and above actual salaries.

The Secretary under instructions from the Chairman read the Minute recorded by the Executive Committee at a meeting held the previous day, as follows:—

"The Executive Committee accept the principles of the scheme considered at last Meeting, under which the employee will contribute to the Fund 10 per cent. of his salary and the U.P.A.S.I. will pay into the Fund an equal amount. The Executive Committee will recommend the scheme to the General Committee for their approval and instructions".

Proposed by Mr. Richardson and seconded by Mr. Behr,—

That the scheme put forward by the Executive Committee for a Provident Fund for European Employees of the U. P. A. S. I. be approved and the Executive Committee be authorised to complete the necessary arrangements and bring the scheme into force as from 1st April 1945.

Carried unanimously,

Provident Fund for Indian Employees.

The Secretary under instructions from the Chairman read the resolution passed by the Executive Committee, as follows :—

" Resolved to ascertain the views of the General Committee on the proposal to establish a Provident Fund for the Indian Employees of the U. P. A. S. I. on the basis of 5 per cent. contribution of

salaries from employees and bonuses of 25, 50, 75 and 100 per cent from the Association according to period of 'service'.

Major Brock explained that this matter had first arisen in connection with enquiries he made as to the cost of insuring against dishonesty on the part of any one of the Indian Staff. It was found that the cost would be between Rs. 1,500 and Rs. 2,000 and the Executive Committee thought that a better course would be the starting of a Provident Fund for Indian employees as an incentive to honesty and good work. The scheme he had prepared was on the same lines as that proposed in the case of European employees except that the contribution was to be 5 per cent instead of 10 per cent of salaries and service was to extend to 21 years before employee become entitled to maximum bonus. He had provided that the position should be reviewed at the end of 5 years and the cost was likely to become less as time elapsed. To start the scheme this would cost for the first year Rs. 2,680.

Mr. Fowler asked if it was proposed to make subscribing to the Fund compulsory on all Indian employees.

Mr. Behr asked whether in case of dishonesty the employer would be able to recoup himself from the Fund.

Major Brock said that the scheme provided that it should be compulsory as regards all employees drawing over Rs. 20 per mensem. and that the rules would specially provide that the Association would have a first claim on the amount at credit of any employee for the discharge of any debt due to the U. P. A. S. I.

Mr. Richardson said that he had no wish to oppose the proposal, but he thought it wanted very careful thinking out as it may have very far reaching effects and might in time even extend to Kanganies and coolies, he thought therefore that we should be careful and he would like the question postponed for further consideration and brought up again at the Annual Meeting.

Mr. Pittock asked what was to be done in the meantime to safeguard the Association against dishonesty, would the meeting like the proposal to insure against the risk persevered with.

Mr. Lord enquired if cases of dishonesty had been many.

Major Brock said there had been about eight during the last seven years one of which had involved the loss of some Rs. 2,000.

Mr. Newcome wished to know if the meeting considered it a bad thing that such a scheme should extend to Writers on estates.

Mr. Richardson said he thought very probably not but that he wanted more time to consider the matter and form an opinion.

Mr. Aird suggested that a special reserve against loss by dishonesty might be created by setting aside a half or even a quarter of the cost of insurance each year.

Major Brock said that he would rather not start insurance at the present time.

The Chairman proposed,—

That the scheme for a Provident Fund for the Indian employees of the Association be postponed.

That further consideration of the scheme for a Provident Fund for the Indian employees of the Association be postponed until the Annual Meeting.

Carried,

At this stage of the proceedings *Mr. Carpenter*, Chief Scientific Officer of the Indian Tea Association arrived and was introduced to those present by the Chairman, who explained that *Mr. Carpenter* had come specially from Assam to assist in the selection of a site for the new Tea Experimental Station. *Mr. Carpenter* having replied the meeting next took up the matter of,—

The Overseas League and Club.

The Secretary explained that *Mr. Rice*, the Special-Commissioner of the Over-Seas League had recently called at the offices of the Association and asked that attention of Planters should be drawn to the League and the Club it had established off St. James Street, Piccadilly. The entrance fee was only 10s/- and the annual subscription the same amount, the League now has a membership of over 33,000 and the club which is one of the largest club premises in London has ample bed-room accommodation.

Several of those present at the meeting had personal experience of the Club and recommended it to those who were not members of League.

Labour Department—Anamalais Scheme

The Chairman said that as had been shown in the Notice of the Meeting an Amendment would be brought forward, the position was somewhat unusual as under ordinary circumstances an Association would not be in order in bringing forward an amendment to a resolution adopted by the Annual General Meeting, but *Mr. Pinches*

as Chairman at the last Annual Meeting when the Anamalais scheme was adopted had expressly said,—“If this Report is passed at this meeting it has to be confirmed in three months time” and I am therefore going to allow the amendment to be put. Before I call upon the Central Travancore Planters' Association to speak to their amendment I would point out that the wording as it at present stands that alterations be made in a Report which has already been accepted is not practicable, what I think is intended is that “Alterations be made in the Scheme set out in the Report of the Select Committee.”

Mr. Milner. We quite agree to the suggestion made by the Chairman and therefore propose, --

“That the following alterations be made in the Scheme set out in the Report of the Select Committee as adopted at the last annual Meeting;—

(1) That the provision contained in para 5 of the Report shall be subject in the case of Tea to the subsidy being not less than 10 annas per acre.

Mr. Lord seconded the resolution.

Mr. Pittcock in opposing it said that the general Committee could vote every year on the point and now that the Association had just carried at an Extraordinary General Meeting a resolution freeing itself from hard and fast rates of subscription why immediately proceeded to tie the Association up again.

Mr. Milner said that he thought the proposed alteration more businesslike as. Honorary Secretary of an Association he found that he was unable to explain to enquirers exactly what the subscription actually was.

Mr. Fowke enquired why the proposal was confined to Tea.

Mr. Milner said that his Association thought that it would be impertinence on its part if it proposed to make fixed subsidies for products in which it was not concerned.

Mr. Newcome appealed to the meeting to give the Anamalais Scheme a years trial before tinkering with it further.

Mr. Wallace enquired what the subsidy account acreage under Tea amounted to in next years Budget.

The Chairman said it had been budgetted at eleven annas per acre ; and that he now put the resolution to the meeting, there voted for the resolution 5 and against 4.

Mr. Pittock demanded a poll and on this being taken it was found that 686 votes were cast for the resolution and 595 against.

The Chairman declared the resolution carried.

Mr Sylvester moved the second alteration proposed by the Central Travancore Planters' Association.

(2) That in the rules to be framed for the conduct of the Labour Department under the Anamalais scheme the words 'subject to the managing powers conferred on the Executive Committee by the Articles of Association' be substituted for the words 'subject to general supervision by the Executive Committee' which occur in para 8 of the Report.

Mr Aird seconded the resolution.

Mr. Pittock opposed on the grounds that the idea was that control should not in future be so much in the hands of the Executive Committee as in the past.

The Chairman put the resolution to the meeting and declared it carried. He said the next alteration proposed is as regards para 9 of the Report which makes no mention of members in waiting for the Control Committees and he therefore proposed,

(3) That Control Committee shall consist of three active members and three members in waiting

Mr. Lord seconded the resolution which was carried nem con.

Mr. Milner said as regards para 12 of the Report we propose,

(4) That in the rules to be framed there is added to the wording in para 12 the words 'subject to the managing powers conferred on the Executive Committee by the Articles of Association,'

Mr. Pittock opposed the addition being made but on the Chairman putting the resolution to the meeting it was carried.

The Chairman said that the other alterations proposed were,

(5) That as regards recommendation in para 13 of the Report the Rules when framed should read 'after the Budget has been approved by the General Committee' instead of 'after the Budget has been passed' and

(6) That the word 'entirely' appearing in para 27 of the Report should be omitted from any rule framed in connection with the Paragraph.

He put these to the meeting and they were carried nem con.

Mr. Milner said that as a Resolution had been passed at the Extraordinary General Meeting, held earlier in the day, amending the Articles of Association to allow of Departmental representation on the Executive Committee, he proposed with the permission of the Chair to withdraw the amendment of which notice had been given as regards para 30 of the Report.

The Chairman having granted permission, that part of the amendment was withdrawn.

Mr. Fowke asked that the Scheme in its final form should give Representation on the Control Committees to all Associations interested in any particular Division of the Labour Department, he thought it not unlikely if estates interested in labour coming from a Division found they had no representation that they would withdraw altogether from the Labour Department. His Association was largely interested in three of the Divisions, yet it was doubtful if they would be represented on any of the Control Committees. He further asked that the schedule of Rates of subscription to the Labour Department be placed before the meeting.

Capt. Windle supported *Mr. Fowke's* contention. The Nilgiri planters were in the same position as those in the Nilgiri-Wynaad and he thought the scheme as at present outlined was dangerous for men, when they found they were controlled by others, were apt to become sulky and resign.

Mr. Lord pointed out that under the present scheme any Association can send representatives to meetings of the Control Committee.

Capt. Windle agreed that it was so, but pointed out they would have to meet their expenses themselves and had no right of voting.

Mr. Pittock asked if *Mr. Fowke* wanted representation on the Control Committee of every Division in which his Association was interested.

Mr. Fowke said that that was so.

Mr. Pittock asked *Mr. Fowke* to make proposals as to how he would amend the scheme to give effect to his suggestion.

Mr. Fowke said that it had been hoped and expected that delegates would have met Major Brock the day before and prepared a definite proposal but Major Brock was occupied with a meeting of the Executive Committee and they had not had an opportunity of carefully going into the matter and framing a resolution.

Mr. Newcome suggested that a way out of the difficulty might be found if Control Committees were given power to co-opt a fourth member with power of voting from any District Association which had a certain proportion of coolies coming from a Division.

Mr. Pittock asked if *Mr. Fowke* would be willing to accept the proposal that any Association drawing say 1,000 coolies from any Division should if it applies for representation be given the same with right of voting.

Mr. Fowke agreed that he was prepared to accept this, and therefore proposed,—

"That any Association other than the three mainly interested having not less than 1,000 coolies from a Division as per the last census may ask for and shall be given representation with voting powers on that Division's Control Committee".

Capt. Windle seconded the resolution, which on being put to the meeting was carried unanimously.

Mr. Behr said that the meeting had not yet heard the Schedule of Rates and without doubting the usefulness of the work done by the Control Committees he should like to point out the result of the complicated schedule of different rates as compared with an all round rate on the different products. Under the schedule there were ten different rates for Tea, five for coffee and eight for minor products which would give considerable trouble to the Head Office in collecting them and to large concerns like the Malavalam Company and the E. & S. Wholesale Co-operative Society. If all Tea, coming into the Anamalais scheme were assessed at Rupees 2—2—0 per acre for the Labour Department receipts would be Rs. 991 less than under the ten rates proposed. If Coffee were assessed at Re. 1 the result would be Rs. 329 less than under the five scheduled rates, and all minor products at eight annas Rs. 186 less than under the eight different rates proposed. A total difference of Rs. 1,506, which small amount surely could be adjusted in a Budget totalling over two and half lakhs. He could not see that an all round rate would be a hardship on any individual or Company, if the Malayalam Co., had to pay more under an all round rate in Wynaad, they would pay less in the Nilgiri-Wynaad and South Travancore. It was the same with the E & S. Co-operative Society they would pay more in Wynaad but less in the Nilgiri-Wynaad. Great elaboration of figures may give satisfaction to some men but he felt that it verged on childishness when introduced into business. If it was now too late to change this year owing to rates having been submitted to District Associations he hoped that next year before the schedule is adopted an attempt would be made to arrive at something less complicated.

Mr. Lord supported what *Mr. Behr* had said but thought that as the Budget had been adopted it was too late for anything to be done on the lines suggested this year. It was possibly a coincidence that might not occur in future years, that an all round rate differing so little from the schedule rates of this year could be found which would entail so little hardship on any individual or Association.

Major Brock suggested that Committee be appointed to draft new Rule embodying the alterations decided on at the meeting.

Mr. Pittlock proposed, —

"That the Director of the Labour Department frame Rules and submit same to the Executive Committee."

Captain Windle seconded the resolution which was put to the meeting and carried.

Mr. Pittlock proposed a vote of thanks to the Chair. Carried with acclamation.

The Meeting then closed.

Extraordinary General Meeting.

An Extraordinary General Meeting of the United Planters' Association of Southern India (Incorporated) was held at the Masonic Hall Ootacamund on the 25th March 1925 commencing at 11 a. m.

PRESENT.

Mr. J. A. Gwynne	...	Chairman
Mr. J. A. Richardson	...	Executive Committee
Major C. H. Brock	...	Director of Labour Department
Mr. H. Waddington	...	Secretary
Messrs Bayly & Brock	per...	Maj. C. H. Brock
The Madura Co. Ltd	...	Mr J. A. Richardson
Tea Estates (India) Ltd.	...	Mr. W. H. Millar
and the following Associations		
Anamalais	per	Mr. C. K. Pittock
Central Travancore		Messrs W. A. J. Milner & E. C. Sylvester
Coorg		Mr. L. Newcome
Kanan Devans		Mr. J. S. B. Wallace
Mundakayam		Mr. M. S. Calderwood
Mysore		Mr. W. H. Reed
Nilgiri-Wynaad		Mr. J. Aird
Shevaroy		substitute Mr. Waddington
South Travancore		Mr. E. Lord
West Coast		substitute Mr. Calderwood
Wynaad		Mr. B. M. Behr

Visitors **Mr. J. H. Cantlay** and **Mr. D. G. Munro**.

By direction of the Chairman the Secretary read the Notice Calling the Meeting dated 22nd December 1924 and Notice dated 15th February changing place of the meeting

The Chairman put the following Resolution to the Meeting:—

That the Articles of Association of the Association be altered in the manner following:—

(A) That Article 6 (a), (i), (ii), (iii) be deleted and the following substituted:—

(i) *Each District Association shall be liable to contribute to the Association a subscription based on the total planted area of the Estates the proprietors or authorised agents of which are members of such District Association. As from the 1st April, 1925, each District Association shall annually pay on the total planted area included in each District Association's acreage held by its members of tea, coffee, rubber and minor products a sum calculated on the following basis, namely, tea estates at the rate of Re. 1 per acre, coffee at the rate of 12 annas per acre, rubber at the rate of 6 annas per acre and minor products at the rate of 6 annas per acre."*

(ii) *"In addition to the said annual subscription each District Association shall be liable to contribute such proportion of the cost and expenses of any recognised department of the Association at such times and in such manner as may from time to time be determined by the General Committee."*

(B) That Article 13 (e) be deleted and the following substituted:-

(e) *"to make schemes for the inauguration of the departments of the Association in furtherance of its objects for the approval of the Association in General Meeting and to make, alter and revoke regulations for the representation on the Executive Committee and the management of such departments when inaugurated by the Association and from time to time to determine the amount and time and manner of payment of the liability of the District Associations to contribute to the cost and expenses of any such department and to make, alter and revoke rules and by-laws for carrying on the business of the Association provided always that the regulations, rules and by-laws in force shall not be repugnant to the Memorandum or Articles of Association and that any regulations, rules or alterations so made shall be subject to confirmation at the next General Meeting of the Association."*

(C) That the following words be deleted from Article 21 (3):-

"Until the twenty sixth Ordinary General Meeting of the Association the Executive Committee shall consist of the ex-officio members and the active members and members-in-waiting elected by the representatives of the District Associations seeking admission to membership of the Association."

That the following words be added to Article 21 :-

(4) *"Departmental representatives:-*

Such representatives and members-in-waiting of recognised departments as may from time to time be sanctioned by the General Committee PROVIDED ALWAYS that a departmental representative shall not be entitled to vote at any Meeting of the Executive Committee except on a question relating to the department which he represents. In case of any doubt as to his right to vote the decision of the Chairman of the Meeting shall be final."

(D) That in Article 22 the word 'and' between 'rubber' and 'coffee' be deleted.

That after the word 'coffee' and before the word 'shall' there shall be added the words :—

'and any department whose representation has been sanctioned.'

(E) That in Article 24 there shall be added after the words 'at their own expense' and before the words 'A member-in-waiting' the words :—

"Subject to the proviso in Article 21."

(F) That in Article 29 after the words 'member of the Executive Committee' and before the word 'elected' the following words shall be added :—

"Other than a departmental representative"

(G) That at the end of Article 30 the following words shall be added :—

"Subject nevertheless to Article 21"

(H) That in Article 38 the figure '30' shall be deleted and the figure '21' be substituted therefor.

(I) That at the end of Article 42 the following words shall be added :—

"Or in the absence of any member of the Executive Committee by any representative elected by those present."

Mr. Milner (Central Travancore) proposed as an amendment that Clause C (4) be deleted, but finding no seconder withdrew his amendment.

The Chairman declared the resolution carried.

The meeting terminated with a vote of thanks to the Chair.

H. WADDINGTON,
Secretary.

THE RUBBER RESTRICTION SCHEME.

The Rubber age says:—

SUPPOSE the Stevenson scheme were abandoned forthwith, and estates made arrangements to speed up production to their full capacity, how long would it be before production overtook consumption? That is the very interesting query opened up by Mr. Heath Clark's speech at the United Serdang (Sumatra) meeting. The answer is one that very closely concerns every manufacturer in this country, in Europe and in America. Thanks entirely to the opposition the scheme encountered, stocks have been reduced almost to vanishing point. And so far as can be judged, production in 1925 will be some 25,000 to 30,000 tons short of the world's requirements. It is therefore not merely a question of the further reduction of stocks, it is a question of no stocks, and failure of supply to meet demand. That restriction was wholly warranted is proved by the action of the directors of United Serdang, who voluntarily came into the scheme, and now congratulate themselves on the satisfactory prospects. But are those prospects so satisfactory from the manufacturers' point of view? If Mr. Heath Clark's estimate be correct the release of all estates from restriction obligations would barely enable them to produce enough to replenish stocks and satisfy manufacturers' needs during the current year, and they would probably not be able to overtake demand for two years. On what Mr. Heath Clark bases that estimate we do not know, but if it is sound, the outlook is serious, and measures ought to be taken at once to release a much larger percentage than is now possible. Whether restriction should be abandoned altogether is another matter. A too rigid application of the Stevenson scale may have consequences never designed nor contemplated, but abandonment might only plunge the producing companies back into the old trouble in 1927. Surely there is some way of striking the happy mean? *The Times* has never been friendly to the policy of restriction and it is, therefore, not surprising that, in a recent survey of rubber conditions in 1924, the whole credit for the improvement in market prices should be given to increased consumption. The fact that the reduction in exports from Malaya and Ceylon under the Stevenson scheme has been rather more than offset by the expansion from Dutch sources is taken to prove that restriction has failed in its purpose. And the argument is used that if there had been no compulsory regulation of supplies the plantation industry would have been in a much healthier condition than it is at present, because the struggling and inefficiently managed estates would have gone under and been absorbed by their stronger competitors. There is, however, a good deal of supposition about this point of view. For one thing, it was not only the weak and inefficient that were suffering from the slump. All British plantations were drifting towards insolvency as a

result of unremunerative prices, and an indefinite experience of working at a loss, or at best on an exiguous margin of profit, might have brought about the complete paralysis of the British plantation industry with the loss of the Empire's position in the rubber world. As things are, the Dutch and their native growers have done their worst, and in spite of it, stocks have been reduced to a minimum. As for the increase in consumption, it is questionable if that has exceeded what might reasonably have been expected, in calculating the effects of restriction, as a result of the recovery of trade under more normal conditions. Restriction was in a sense a panic expedient to meet a genuine crisis, and as such it should be given its full measure of credit for having helped to avert an Imperial calamity

SUGGESTIONS FOR INCREASING THE EFFICIENCY OF ESTATE LABOUR.

By H F. M.

(Indian Scientific Agriculturist).

The first great essential for maintaining an efficient labour force is health

Given health mankind has the greatest asset in life.

To maintain a healthy labour force we require amongst other things the following. A plentiful supply of good water, firewood, and land for the coolies, and good houses.

The water to be free from contamination, easy access to firewood and houses built on land that is well drained, with land available for the coolies to grow vegetables. If an estate has *Dhan khet* land available it is a great advantage, especially so when the garden is cut off from the outer world during the rainy season when it is difficult for outside supplies to reach the garden bazaar.

Given the above the labour force has a good start, and given a fair amount of consideration from the Company and the Manager with justice from the local Staff there is very little the coolies have to complain of. Of course a man is appealed to through his stomach. He must be well fed and nourished to keep up his health and strength, to enable him to carry out the strenuous work demanded of him, and to enable him to get a few of the comforts in life.

This can only be done by consideration being given to his daily task. All tasks on an Estate should be regulated on the basis of a man being able to earn -/8/- and a woman -/6/- per day which I consider the minimum wage per day for coolies, and not the maximum, and a wage that the weaker coolies should be able to earn.

The stronger members should be able to earn -/12/- for men and and -/9/- per woman. For all works outside Plucking the task should be arranged so that the coolies can earn the wages mentioned above.

On all works where a task is given outside of plucking the coolies should be able to return to their houses by one o'clock or at latest two o'clock when they can get their food and the stronger members be able to turn out after their food and a rest to earn more money if they feel up to it. In the cold weather and before the plucking season starts the coolies have to get in their firewood for the rains; they have also to get their land ready for their vegetables and crops, fences have to be repaired, and cattle sheds built and a hundred and one things done to keep them comfortable in and around their houses.

I do not consider that the average coolies on an estate look for very much in the way of entertainments. They have their own social life and an occasional cinema is about all that they would require to entertain them. During the plucking season I think that coolies should be supplied with plenty of hot tea instead of drinking water. No sugar or milk is necessary, The tea is very sustaining and being hot it is better for them than cold water, especially so in hot weather when they are sweating at every pore of the skin.

Payments. These I consider should be weekly payments. The average coolie is ignorant and unable to keep an account of his earnings for a whole month, but, if paid weekly he has a better chance of being able to arrive at what he has earned, besides which there is not the necessity of borrowing money from the Sirdar or the Garden Kyah.

Maternity bonus. Fortunately this is now compulsory by law and is a very good idea. The expectant mother now draws an allowance to keep her nourished at a time when she is unable to work, both before and after confinement.

Creches. These may be tried but I am afraid that this would be held in awe by the coolies on account of the evil eye and evil influences of the nurses.

Medical attendance. All gardens I understand have free medicines and free medical attendance, but with it all a good deal of supervision is required over the Doctor Baboo who is apt to refuse to visit sick coolies if it is any distance from his basha.

Every estate should have a hospital, however small, where serious cases, or even convalescent cases require good food and nursing.

The coolie often gets over his or her illness but dies later through sheer neglect and want of nourishment.

In Conclusion. To maintain a healthy, efficient and contented labour force I would advocate justice and equity in all matters and a kindly sympathy from the local staff and Managing Agents.

There is a lot of talk about the price of tea at home, but if tea is reduced in price, it is only natural that the Companies cannot afford to be so liberal in expenditure and consequently a tight hand is kept on expenditure and the Company is unable to see the reason for extra expenditure being incurred, and there is a constant questioning of rates of wages and in consequence the Manager has to draw in his horns and only carry out what he considers absolutely necessary.

We live in times when everything in life is expensive, and even the coolies on an Estate have to pay more for their requirements.

This article is written by a Tea Planter of 32 years experience in Tea.

LETTERS TO THE EDITOR.

(The Planters' Chronicle is not responsible for the opinions of its correspondents).

Dear Sir,

British Income Tax Refunds.

For the benefit of any Indian gentlemen who may be unaware that they are entitled to recover a considerable sum of money should they derive any income from English registered companies, may I be permitted to point out the following salient facts:-

(1) Every Indian gentleman of British nationality is now entitled to recover either the whole or a proportion of any British Income Tax deducted at source from his dividends.

(2) This includes dividends which are stated to be paid "free of tax", or even when no deduction for tax is shown on the dividend voucher in the case of a British registered company.

(3) No liability on income not derived from Great Britain can be incurred by putting in these claims.

(4) The amount recoverable varies from a small amount to hundreds of pounds, depending upon the amount and source of the income.

(5) These claims can be made in respect of income received from April 5th 1920 to date.

I shall be pleased to give further information regarding these claims to any of your readers if they will write me at 13 Buckingham Palace Gardens, London, S. W. England.

Yours faithfully,
WILFRED. T. FRY.

U.P.A.S.I. STATISTICS SHIPMENT OF SOUTH INDIAN PRODUCE during FEBRUARY, 1925.

From.	To other ports in India	Ceylon.	United Kingdom.	Europe.	Asia.	Africa.	America.	Australia.
TEA.								
Madras	622	...	3,05,599	1340	1500	...	...	...
Calicut	20,132	20,429	5,50,033	...	...	...	2650	...
Cochin	41,440	...	4,18,686	720	...	48	...	...
Tellicherry	...	...	34,214	...	...	...	...	...
Tuticorin	...	2,43,080	118,3014	...	...	...	...	...
Alleppey	...	11,422	69,914	...	...	...	...	...
Totals...	62,194	2,74,931	256,1460	2060	1500	48	2650	...
Previously...	8,66,448	3,24,2197	3,10,70,098	65,501	8081	6180	119,665	60
Total lbs. since 1-4-24 38283073...	9,28,642	35,17,128	3,36,31,558	67,561	9581	6228	1,23,316	60
COFFEE								
Madras	1,210	...	...	...	9	...	...	...
Calicut	66	...	5881	1161	...	...	...	600
Mangalore	2,492	...	18035	14258	4075	...	...	1263
Tellicherry	...	...	5985	2058	...	...	...	281
Bombay	...	...	...	754	870	...	...	...
Totals...	3,768	...	29,901	18,231	4954	...	...	2144
Previously...	1,123	...	16,185	8928	2106	...	...	241
Total cwts. since 1-1-25 87581	4,891	...	46,086	27,159	7060	...	...	2385
RUBBER								
Calicut	...	92,833	88,378	...	...	...	...	...
Cochin	...	1,43,235	419,343	13,440	...	2000	518,264	...
Mangalore	...	31,431	...	...	...	...	...	...
Tellicherry	...	...	7460	...	...	...	...	...
Tuticorin	...	72,183	4640	...	...	...	...	...
Alleppey	221	1,33,210	40041	21,617	268	...	13,152	...
Totals...	221	472,392	559,862	35,037	268	2000	531,416	...
Previously	1,000	6,29,740	718,775	21,585	...	...	27,560	...
Total lbs. since 1-1-25 3000374	1,221	11,02,632	1,27,86,35	56,642	268	2000	558,976	...

The Planters' Chronicle.

Recognised as the Official Organ of the U. P. H. S. I., Incorporated

Secretary's Registered Telegraphic Address "UPASI," MADRAS.

Mr. EDWIN VINCENT.—Managing Editor, Coimbatore,

Telegraphic Address:—"CHRONICLE," Coimbatore.

VOL XX No. 15.]

APRIL, 11TH 1925.

[PRICE As 8.

CONTENTS.

	PAGE.		PAGE.
The Rubber Growers' Association		Golf	... 238
tion ...	233	Planters' Week 1925 Inter	
Nilgiri-Wynaad Planters'		District Tennis Results	... 239
Association ..	233	District Notes	... 240
U. P. A. S. I. Sports Club ...	236	Letters to the Editor	... 241

PRICE OF "A" COFFEE.

BY CABLE LONDON, 10th April, 1925.

155s./—per cwt. Market Dull.

THE RUBBER GROWERS' ASSOCIATION.

(South India Branch).

We are asked to announce that the Annual General Meeting of the South Indian Branch of the Rubber Growers' Association will be held at Cochin on the morning of the 27th April 1925.

NILGIRI-WYNAAD PLANTERS' ASSOCIATION.

(Incorporated).

Proceedings of a General Meeting held at Gudalur on Wednesday the 18th, instant at 11 a.m.

Present. Messrs. R. Fowke, (Chairman), W. K. Baillie, J. C. Blackham, J. Aird, G. W. Fulcher, W. Seton Scott, F. E. Morehead, P. W. Davis and D. Mackintosh, (Honorary Secretary).

Minutes of last Meeting, held on 7th, January 1925 having been published, were taken as read and confirmed.

U. P. A. S. I. Delegates. Mr. J. S. Nicolls wrote, expressing his regret, through pressure of work, at having to resign as a Delegate.

The Meeting passed a hearty vote of thanks to Mr. Nicolls, for the good work he had done for this Association in the past, and very much regretted his decision.

A ballot was then taken and Mr. R. Fowke was appointed in the place of Mr. Nicolls.

U. P. A. S. I. Delegates. (Messrs. J. Aird and R. Fowke) attending Meeting to be held at Ootacamund on 25th instant were instructed.

Election of a member of the Madras Legislative Council The Meeting was unanimously in favour of voting for Captain E. G. Windle.

Roads and Communications Col : Ward. The Nilgiri District Board Engineer, was invited to attend the Meeting.

Big slip on 3rd mile of the Ouchterloney valley Road. As several of the Members present were of the opinion that the above road would slip again, in the first, heavy rains, and the Valley would be isolated, as last year for several months, the following schemes were put before the Meeting, (1) To cut a new road below the present slip and to join on to the Chembali Road, (2) To cut a new road from Periashola Estate to Nadgani, a distance of about 4 miles.

Col : Ward pointed out that the Government would not sanction the money for cutting new roads, and if new ones were cut, they would always have slips on them for several years and added that he felt sure that he could arrange to get the old slip put in thorough good order before the Monsoon.

The following Resolution proposed by Mr. J. Aird and seconded by Mr. G. W. Fulcher, was unanimously carried.

"That in the opinion of this Association the repairs to the Ouchterloney Valley Road should take precedence of any other Monsoon Damage still outstanding on District Board Roads. The

District served by this road has no alternative outlet and in the event of this being closed the District would be entirely cut off."

Pykara Bridge. The following Resolution proposed by Mr. G. W. Fulcher and seconded by Mr. J. Aird was also unanimously carried:—

"Owing to the Electro Hydraulic Scheme having delayed the rebuilding of the Pykara Bridge, that the present temporary bridge be raised and strengthened and made as far as possible safe to stand the next S. W. Monsoon "

Sholady Bridge. The Resolution noted below proposed by Mr. J. C. Blackham and seconded by Mr. D. Mackintosh was unanimously carried:—

"This Association requests the Malabar District Board, that in view of the dangerous state of the central pier of the Sholady Bridge (At Malabar-Nilgiri Frontier) the under-pinning of same be immediately undertaken as in the opinion of the Nilgiri District Board Engineer, there is grave danger of the whole pier collapsing in the Monsoon and the small sum of under Rupees Five Hundred would suffice."

"In view of the fact that the Nadgani Ghaut being impassable the Sholady route is the only route left to the coast."

The Honorary Secretary was requested to write to the President Nilgiri District Board re the O'Valley and Pykara Bridge, and the President, The Malabar District Board, through the Collector of Malabar.

A hearty vote of thanks was voted to Col. Ward for attending the Meeting.

Anamallay Labour Scheme. The matter was lengthily discussed and a sub Committee appointed to interview Major Brock, Director of the Labour Department at Ootacamund at 3 p. m. on the 24th, idem.

Mr. J. W. G. Bisset having resigned as Member in Waiting for the Mysore Division, Mr. G. W. Fulcher was elected in his stead.

Scientific Department U. P. A. S. I. This matter was gone into and discussed and the Hon. Secretary instructed to write and find out more about the Scheme.

R. FOUKE,
Chairman.

D. MACKINTOSH,
Honorary Secretary.

U. P. A. S. I SPORTS CLUB.

Proceedings of a General Meeting held at the Ootacamund Golf Club House on the evening of 26th March 1925.

Present. Mr. N. C. Whitton (President) Messrs. Hawkins and English (Committee members) Mr. G. W. Fulcher (Hony. Secretary) Mr. H. Waddington (Treasurer) & Messrs. Dixon, Cooper, Winterbotham, Eyre, Blackham, Gouldsbury, Aird, Koechlin, Swayne, Wright, Gwynne, Sullivan, Inman, Captains Windle and Nixon and Dr. McEnery.

1. *Finance.* The accounts for the year up to 28th February were put on the table showing a balance in hand of Rs. 1,650-6-6 add subscriptions and donations since promised and received; balance as at end of year 31st March was estimated at Rs. 2,300/- against a closing balance last year of Rs. 2,196-9-5.

2. The following resolution, proposed by Mr. Gwynne and seconded by Mr. Inman was passed:—

"Resolved that Honorary Secretaries of District Associations be asked to put on the agendas of their next meetings the subject of support to the Sports Club."

3. Owing to the conspicuous absence of younger planters at the Meet, other than those up for the Rugger Match, the following resolution was put from the Chair and unanimously carried:—

"In view of so few of the younger planters attending the Annual Meet owing to their not being able to meet travelling expenses - it is proposed that the Club defray as far as funds allow a grant towards travelling expenses of men whose salaries are less than Rs. 450/-"

"That no members drawing salaries of Rs. 450/- and over shall be entitled to their travelling expenses not only to the Annual Meet nor when representing the U. P. A. S. I. Club in any game in Madras or elsewhere."

That subscriptions be raised on the following scale:—

Members drawing Rs. 1000/- and over from 15/- to 25/-

„ „ 500/- and under 1000/- „ 10/- to 15/-

No increase for salaries under Rs. 500/-.

4. Election of office bearers for 1925/26.

President - Mr. J. S. Hawkins

Committee - Messrs. Behr, Hamish Stuart and Capt. Nixon.

Hony. Secretary - Mr. G. W. Fulcher.

5. With a very sincere vote of thanks to Mr. Whitton (in the chair) for the great trouble he had taken in making the Meet such a success and to the Hon. Secretary O. G. C. for use of the room, the meeting terminated.

N. C. WHITTON,
President.

G. W. FULCHER,
Hony. Secretary.

U. P. A. S. I. SPORTS CLUB.

Members of the new Committee for 1925-26 who were present in Ootacamund met on the morning of 29th March at Hobart Park. Cricket Ground.

Present:—Mr. J. S. Hawkins (President), Capt. E. M. Nixon and Mr. G. W. Fulcher (Honorary Secretary) by invitation Mr. D. Cooper representing the Anamalais.

Proceedings.

1. *Murphy Cup*. Mr. J. J. Murphy's kind offer of a Tennis Challenge Cup for Planter ladies was gladly accepted.

Conditions will be published later.

2. *Life Membership Subscription*. Owing to the resolution passed at the General Meeting on 26th March, the Committee considered it necessary to raise this from 1st April 1925 from Rs. 100 to Rs. 150 subject to sanction at the next General Meeting of the Club.

3. *Annual Meet*. 1926—Subject to approval of Members, it is proposed to shorten the next year by two days commencing on Monday and finishing the following Sunday:—

Monday. Inter District Tennis.

Tuesday.

Wednesday. Murphy Cup (ladies) and Inter District Golf.

Thursday.

(evening) prize giving and Sports Club General Meeting.

Friday. Cricket Trial Game.

Saturday. Cricket Planters v. M. C. C.

Sunday.

Dance Committee. There being no member of the Committee resident in Ooty, an Entertainments sub Committee will be formed for next year, on which Capt. Windle and Messrs. Latham and Koechlin have kindly offered to serve.

4. *Cricket Groundsman.* The usual fee of Rs. 150 was sanctioned for Mr. Chockalingam.

5. *Cricket Ground.* The Honorary Secretary was asked to write to the Secretary, Ooty Race Club Ltd, thanking him for the loan of crockery, chairs etc. for the cricket matches.

6. With a vote of thanks to the Chair, the meeting terminated.

J. S. HAWKINS,
President.

G. W. FULCHER,
Hon. Secretary.

GOLF.

The following are the results of the Golf tournament held in the Planters' Week :—

Entries: Coorg, Kanen Devans (High Range), Mysore, Nilgiris and Nilgiri-Wynaad.

The following qualified:

Coorg, Kanen Devans and Nilgiri-Wynaad.

Results:

Laird and Holden (High Range) beat Fulcher and Koechlin (Nilgiri-Wynaad) 1 up.

Finals: Laird and Holden (High Range) beat Coorg (Bentley and Newcome) 6 and 5.

PLANTERS' WEEK 1925.

INTER DISTRICT TENNIS.

Draw and Results.

Nilgiris	Bye (Scratched)	U. P. A. S. I			
U. P. A. S. I.	Bye	W. O.			
Wynand	Bye			Kanen Devans	
Peermade	} Kanen Devans				
Kanen Devans					Kanen Devans
Nil-Wynaad	Bye	Nil-Wynaad			
Coorg	Bye (Scratched)	W. O.			
Anamallais	Bye			Nil-Wynaad	
Mysore	Bye	Mysore.			

DISTRICT NOTES.

Kotagiri. Since my last notes much Coffee has been gathered in and found its way down the ghat, to arrive at the curers, some a little in excess of the estate despatchings, but mostly turning out short, and in some cases so much so, that one has to pause and ponder, as to the cause. The journey from these hills to the curers is such a short one that "drying out", "breakage of the Parchment husks," during transit and handling of the bags, "wet" &c., cannot altogether account for the serious difference in the two sets of measurements. There has been a very considerable amount of stealing this year, judging from the "bag" our new and very energetic Inspector of Police has secured this "season". Mr. Saville has not been a year in Kotagiri yet, but he has managed to detect 18 cases, and has brought to light much slackness of Police supervision in the past. In strange comparison with Mr. Saville's work, his predecessor, during the four years or more he was here, only secured one paltry conviction. In connection with these cases, it transpires that the Badagas "Pass-books", in several instances, had not been entered up from 2 to 10 years !

Coffee stealing on these bills, where so many Badagas have patches of a few bug-ridden trees to half a dozen acres, is so common that a conscientious and energetic Police Inspector should have no excuse for sending for a "blank charge sheet" at the end of the season !

Crops have mostly turned out in excess of estimates, and on the whole, I think I am safe in saying we have had a bumper season. Most estates have finished Picking and Pruning is well in hand.

Weather. Good rains have fallen nearly all over the District, bringing out small blossoms, but there are some estates, that are still waiting, for their "blossom showers"—

Social. Another of our oldest members, Mr. G. K. Martin (once of Coorg) has lately returned from a holiday in the Home-land so full of buck and vim, that none of the young, (I was going to say "Flappers"—but remembered in time!) ladies now up for the season, need sit out a dance, when he's in the room! The "season" is now in full swing and dancing is the order of the day (as it is every where else) at the club, which is shortly to be installed with electric lighting.

LETTERS TO THE EDITOR.

(The Planters' Chronicle is not responsible for the opinions of its correspondents).

Sir,

Abolish Advances.

Mr. Martin's letter in the Chronicle of the 21st. March was rather a surprise.

The late Director of the Labour Department now favours recruiting against debt-collecting. Splendid!!

For the last ten years I have been advocating no advances and wrote one or two letters to the Chronicle on this subject to which Mr. Martin replied. He has now changed his mind.

Surely we can combine to do away with advances on a fixed date, before Government does it for us.

As I wrote years ago Mr. Martin writes now. Let us have a definite item of expenditure instead of an unknown quantity in bad advances. I am certain we would get more coolies with the help of the Labour Department. At the same time we would "clip" the wings of the Manager who works at an average cost per lb. but who does not mind saying goodbye to 25% of his advances which contain a good deal of expenditure paid in offering unfair attractions to his Labour.

There is still another item of expenditure we should wash out—Loss on Rice. Do we get credit from our Indian Legislators for the thousands of rupees we spend annually for this? No we do not even get credit from our own coolies who do not understand it. They are believers in hard cash. Rates will never go down neither will the price of rice. So let us issue at cost and each district raise their rates.

I sign now as I think I signed years ago.

Yours faithfully, "Vive ut Vivas".

Act XIII of 1859.

Dear Sir,

In your issue of the 28th ult., page 211, the writer of the interesting District notes from the Shevaroy's points out with truth that a man who fails to perform his contract, however wilfully, cannot be punished for Breach of Contract, but for contempt of Court, under Act. XIII. This however entails catching the culprit again. Our forefathers had a simpler way. When the Court ordered a man to perform his contract, the complainant applied for Security that he

would do so, on the pretext that the defaulter was about to leave the jurisdiction of the Court by emigrating. No security being forthcoming, the defendant was sent to jail. This did not add to the labour supply, nor did it act as a deterrent, but merely added point to our predecessors' unfortunate sobriquet of "Brutal Planter."

Yours faithfully,
AYLMER MARTIN.

St. Dunstan's Birthday.

Dear Sir,

Will you please allow me to tell your readers that to-day is the Tenth Anniversary of the Foundation of St. Dunstan's by the late Sir Arthur Pearson.

This is not the place to refer in any detail to St. Dunstan's achievements and needs, beyond saying that in the ten years of our existence we have trained upwards of 2,000 blinded soldiers, sailors and airmen, and have settled almost all of them in useful occupations, through the pursuit of which they are able to add to their pensions and avoid the unhappiness which might have been their lot were they unemployed.

We have pledged the community to look after these men for the rest of their lives, we receive no State assistance, and we have to collect from voluntary sources nine-tenths of the annual income we need.

In these circumstances may I ask your readers to wish St. Dunstan's Many Happy Returns of the Day, and to ensure that the wish will come true by sending us a donation as a Birthday Present?

Yours faithfully,

IAN FRASER,

Chairman St. Dunstan's,

Inner Circle, Regent's Park, London, N. W. 1.

27th March, 1925.

The Planters' Chronicle.

Recognised as the Official Organ of the U. P. A. S. I., Incorporated

Secretary's Registered Telegraphic Address "UPASI," MADRAS.

Mr. EDWIN VINCENT.—*Managing Editor, Coimbatore,*

Telegraphic Address:—"CHRONICLE," Coimbatore.

VOL XX No. 16.]

APRIL, 18TH 1925.

[PRICE AS 8.

CONTENTS.

	PAGE.		PAGE.
Coffee in British East Africa	243	Silani	... 250
District notes	... 244	Spraying Against Black Rot	
The World's Favourable		of Coffee	... 251
Rice Harvest	... 246	Letters to the Editor	... 254
The Soil Fertility Puzzle	... 248		

PRICE OF "A" COFFEE.

BY CABLE LONDON, 17th April, 1925.

155a./—per cwt. Market Dull.

COFFEE IN BRITISH EAST AFRICA.

In our issue of 14th March last, we commented on the statistics relating to Coffee production in Kenya, and we are now indebted to the Director of Agriculture, Nairobi, for a copy of the Agricultural Census of the Colony for 1924. This brings our information more up-to-date, and it would appear that the crop continues to make very substantial progress. The census shows that, on the 30th June, 1924, 60,054 acres were planted under Coffee, an increase of 7,805 acres as compared with 1923. The Fort Hall district increase of 2,096 acres representing 26.62 per cent of the total increase is noteworthy.

Returns of Coffee plantations have been made by 671 planters indicating that 40 per cent of the total number of European occupiers are Coffee growers.

The total production of clean Coffee for the period 1923-24, (July—June) was 129,971 cwts and that of "Buni" 14,981 cwts giving a total of 144,952 cwts, comparing with the estimates of 122,885 cwts. The estimated production for 1924-25 is given as 131,587 cwts.

The following tables show the acreage planted in each of the five years during which a Census was taken, also the areas at different stages of production and the increase in each year.

Year.	Total acreage.	Non-productive area (up to 3 years)	Semi-pro- ductive area 3-6.	Fully pro- ductive area over 6 years.	Increase in total acreage.
1924	60,054	27,883	13,269	18,902	14,981
1923	52,249	25,472	9,649	17,128	8,890
1922	43,359	20,137	9,474	13,748	9,546
1921	33,813	13,682	10,349	9,782	6,000
1920	27,813	9,733	11,020	7,060	—

DISTRICT NOTES.

Shevarey Hills.

Coffee Blossom. As mentioned in my last the flowers opened, except in the Northern portion of the Hills where they have only just had their Blossom Showers, during the last week of March and from all accounts it has been a very agreeable surprise on most Estates, after the good crops that we have just picked. Estimates should however, I think, be on the cautious side as the clusters were small and allowance should be made for the "tired" condition of the trees or we shall have a repetition of our sad experiences in 1922-23. There is a second blossom coming but it is going to be small. It is a peculiar fact that even where the rain was decidedly good a lot of the blossom burnt off before it attained half its full size and dry "paddy" could be seen on the same branch with open flower.

Stephanoderes. In the interesting extracts on this subject published by the Dy. Director of Agriculture in the P. C. of 10-3-25, it will be seen that the importation of coffee plants and seeds into India from America by private individuals is prohibited. I do not know if I am right, but presumably the word "seeds" means only in a condition fit for propagation, or what we call parchment, and does not include clean coffee ready for roasting. Is there then no danger of the *Stephanoderes* larvae being imported in "clean" coffee or in the bags containing it? Also, are there no rules prohibiting the

import into India of coffee seeds from Java, where the pest appears to have originated? If not it seems an anomaly (to put it mildly) to take precautions against the introduction of a pest from a country so far away, and to ignore the presence of the same disease in a land almost neighbouring us.

Weather. This is an evergreen subject, and Mr. Editor, if ever you find my letters too long you can cut out these "vapourings" and "outpourings". We have had very welcome showers almost every afternoon on some part of the Hills this week followed up occasionally by another storm at night, which latter is very unusual at this time of the year. Early in the month, after a clear sky all day, a narrow storm swept over the Hills with hail the size of gooseberries but fortunately they were few and far between.

Social. Mr. and Mrs. Watts gave us all a very pleasant "At Home" at the Victoria Rooms on the 25th of last month. At the same place on the 2nd inst. the Public of Yercaud gave Mr. and Mrs. D'Silva a farewell party. The Chairman of the S. P. A. expressed the gratitude of the residents for the valuable services of the former as Hony. Secy. of the Church Vestry and of the Victoria Rooms, and on the Committee of the S. P. A. and the Tennis Club, and to the latter for organising so many entertainments for our amusement and for charities. At the conclusion Mrs. W. Rahm presented Mr. D'Silva with a gold wristlet watch, suitably inscribed and to Mrs. D'Silva a bottle of smelling Salts in a silver holder which it was thought might be useful as a restorative during attacks of "mal-de-mer". We have also had several smaller functions and picnics and during Easter there has been a rush of Salem folk to the Hills.

Legislation. With reference to Mr. Aylmer Martin's letter to the P. C. of the 11th inst, I think I am right in saying that there has not been a single case on record of a Planter on these Hills having demanded Security for the performance of a Contract by a cooly.

With regard to Maternity Legislation, which is shortly going to be one of the chief subjects of interest, in the opinion of most of us, who have had any experience, cooly women in a delicate state of health can, with benefit to themselves, be kept on light work until the day of the birth of the child. As any Doctor will tell us, it is very necessary for a woman in that condition to take a certain amount of exercise as it is to the benefit of neither the mother nor the child for the former to sit in her house for any time before the birth. Every woman should be given complete rest for 10 days on full pay after the birth of the child, after which she ought to be quite capable of starting light work again. This opinion is based on what a European woman of the middle class usually does and I do not see that it can be at all necessary for an Indian woman of the working class,

who is used to physical labour, to need more rest. Another point not to be ignored is that every Employer must of necessity be educated to a certain extent and however little that education may be, he must have learnt that to illtreat or overwork a woman in that condition is dangerous to the life of both mother and child and therefore it is most improbable that any Employer will deliberately overwork a woman at such a time, even if all he considers is the risk of the loss to himself of his advance; or other debts, or his good name. It seems to me that Legislation on this subject will do more harm than good if it takes the line of a longer period of enforced rest not only for the above reasons but also because no Employer will engage women in that condition, knowing what is before him.

Crops are all over now but not much progress is being made in disposing of our Strippings and Gleanings as prices offered do not compare as favourably with Parchment as they ought to do. I see Kotagiri mentions a reluctance on the part of Planters to send their coffee to the Curers on account of shortage from various causes. The same thing exists here, as the shortages on arrival at destination run from 5 to 10 % generally. Undoubtedly breakage of husks and heat in the wagons has a lot to do with this.

General. Planters often complain that Government do not advertise their publications and activities sufficiently and in this connection I may mention a book entitled "A Note Book of Agricultural Facts and Figures" Price Re. 1, which was very kindly lent to me by our D. D. of Agriculture. This book will be found especially useful to those who keep cattle as well as to all employers of Labour and it can be obtained at practically any booksellers in Madras or at the Govt. Press. Another point of interest to those on these Hills and of which most of us, I think, have been ignorant is that there is a Touring Veterinary Assistant Surgeon in Salem whose services can be obtained free of charge on application to the Circle Officer, Civil Veterinary Dept. Coimbatore.

THE WORLD'S FAVOURABLE RICE HARVEST.

The International Institute of Agriculture has recently received the data of the 1924 rice crop areas and yields in India, Siam and the Philippines. Thus we now know the yields of Bulgaria, Spain, Italy, Portugal, United States, Ceylon, India, Indo-China, Japan, Korea, Formosa, Philippines, Siam, Java and Madura and Egypt, which furnish in the aggregate about 98% of the world's rice (excluding China, whence no statistics are available).

In these countries as a whole, the area under rice in 1924 was about the same (100.5%) as in 1923; it differed but little (99.3%) from the average for the five-year period 1919-1923, and showed an increase of 3.9 % on the quinquennium 1914-1918.

Consequent on the generally favourable season, the world yield of rough rice in 1924 comes out at 1,807 million centals, being greater (by 7.5 %) than the yield of the previous year, and greater also (by 2.1 % and 4 % respectively) than the 1919-1923 and 1914-1918 averages.

With regard to the quantities of rice available for export, it should be noted that a number of the largest producers (such as Japan together with Korea and Formosa, Ceylon, and Philippines, the Dutch East Indies, and Egypt) are not as a rule exporters but usually must import more or less considerable quantities. As a matter of fact, the only important rice-exporting countries are Spain, Italy, the United States, India, Indo-China and Siam.

The important exporting countries of Asia (India, Indo-China, Siam) in 1924 exported 148 million centals of rough rice. They yielded in 1924 an aggregate considerably greater than that of the previous year and some what higher than the average. The presumption is, therefore, that the exports of these three countries will this year show a tendency to increase.

With regard to the minor exporting countries, it is particularly interesting to note the increase, both in actual quantities and in percentages of production, in the rice exports of Italy and Spain during 1924 in comparison with all the preceding years.

Spain exported in 1910-1914 an average of only 5 % of her production, but by a continuous increase in production was enabled to raise this percentage to 18 % on the average, during the quinquennial period 1915-1919, and to an average of more than 28% during the five years from 1920 to 1924.

Italy, which was the chief European rice-exporting country previous to the war, regained an unquestionable first place last year. On the basis of the plentiful harvest in Spain and Italy in 1924, it may be presumed that the exports of these two countries during the current year will maintain a high level of quantity.

In view of the diminished yield in the United States, it may be expected that the exports of that country will this year, as in 1924, be below those of previous seasons. The importance of the United

States among rice-exporting countries appears particularly noteworthy however, if it is considered that this country became an exporter as lately as 1919, although the home consumption has been on the increase.

THE SOIL FERTILITY PUZZLE.

There are many people who talk about soil fertility as though they know all about it ; when the fact is that they have the vaguest conception of what it really implies, owing to their ignorance of the factors that govern and control it, and the economical and efficient means of maintaining it. Hence arises the need for Agricultural Experiment Stations, which in most countries have helped to throw considerable light on this very complicated question. At one time it used to be thought that the advice of the chemist was sufficient to guide us in our Agricultural practice : but this idea is being gradually abandoned ; and to-day one looks more to the biologist for inspiration : and chemical analysis is useful only in association with field experiments. In England, the trials made at Rothamstead since the days of Lawes and Gilbert have done more for British Agriculture than anything else, and the records of the results are amongst the priceless treasures of that country. But in this country we appear to be still unconvinced and even suspicious of the Agricultural Experiment Station, and to a great extent are blundering along by the dull light of empiricism instead of being shown the way by the illumination of scientific investigation and research.

In India it is gratifying to find that good progress is being made with Agricultural research, and that the Agriculturist there is being assisted in his efforts to solve the baffling problems that so frequently confront him. This we gather from the "Review of Agricultural Operations in India for 1923-24," for a copy of which we are indebted to the Indian Department of Agriculture. It is now generally known that the soil is able, under certain conditions, to fix the free nitrogen (composing about $\frac{2}{3}$ of the atmosphere) through the agency of symbiotic organisms found on the root-nodules of certain plants, chiefly leguminosae. But there are many people who are not aware that nitrogen fixation also goes on independently of symbiotic organisms. It is of the utmost importance, therefore, that everyone who has to do with the land should know that this takes place, and learn as far as possible, the means by which the process can be controlled and encouraged. Investigations carried out at Pusa go to show, among other things that bone-meal gives a higher fixation rate than mineral phosphate,

and that the nitrogen content of the soil is indirectly as well as directly increased by the addition of decaying organic matter—up to a certain limit, beyond which, owing to the excess of it, there is a loss of nitrogen as the result of fermentation and the evolution of ammonia. The use of decayed paddy straw increased the yield of cereals, not on account of its manurial properties but owing to its encouraging nitrogen fixation. Sugar-cane trash was not satisfactory unless it had been previously treated with liquid manure, while rice dust was too liable to rapid fermentation with the formation of ammonia. There would appear to be something in the mechanical condition of the organic matter added which controls nitrogen fixation, as is to be inferred from the fact that cane trash is coarse and rice dust is in a fine state. The conclusion to be arrived at from the investigations carried out is that organic fertilizers—whether cattle manure or rice straw—apart from any inherent value they possess—have a potential value in their ability to bring about nitrogen fixation by encouraging the action of soil bacteria.

The work done in the Punjab goes to indicate that normal soils are able to fix atmospheric nitrogen even without the adventitious addition of carbohydrate material; but such normal soils, it is to be presumed, are fairly rich in humus. It was also found that, under certain conditions, still to be discovered, loss of nitrogen takes place, due no doubt to conditions favouring the action of denitrifying bacteria. Light soils possess a greater power of fixation than heavy soils, and suffer less from denitrification. On the whole, the general balance is in favour of nitrification. On wheat land in the Punjab, the exposure of the soil for some months after the removal of the crop was found to induce nitrification—the decaying stubble probably providing conditions favourable for the work of nitrogen-fixing bacteria. We note that a study of soil organisms—protozoa, bacteria, algae &c—has been begun with a view to ascertaining their seasonal variations and their relationship to the growing crop.

In considering the results of these investigations, one realises the vast importance of humus to the soil, and the value of green-manuring in Agricultural practice. In many Agricultural districts the proximity of forests makes it possible for planters to supply organic matter to the soil, in the form of leafage, at a minimum cost. In a large number of cases it is the absence of organic matter that causes infertility. The Tamils of Jaffna have come to realise the importance of humus, and make use of any form of vegetable refuse that is available to them. In the Indian experiments it was found that by the addition of organic phosphate ("superphosphate" was found to be the most suitable form), the action of green manures can be accelerated. It was also found that bacteria can take up a considerable quantity of phosphoric acid and store it up in their cells in the form of organic compounds. A particularly interesting

experiment carried out at Pusa was a trial with sulphur added in small quantities (10 lbs. to the acre) to green manure. This markedly increased the output of both grain and straw in wheat.

It must, thus, be quite evident to any unprejudiced mind that our knowledge of how to maintain the fertility of our soils in the most rational way, is still very rudimentary. If we are to improve that knowledge we must in the first place be ready to admit our ignorance and in the second to try and learn all we can, instead of arrogating to ourselves the possession of knowledge that is still far beyond our reach, and so remaining ignoramuses to the end of our days. And the best way we can attain to a fuller and sounder knowledge of Agricultural practice is through scientifically-conducted experiments. If the local Agriculturist with his superior wisdom will cease to dogmatise and look to scientific workers to reveal what is at present hidden from them, there is some prospect of steady and definite agricultural progress being made—progress that must come if only selfopinionated people will not block the way.—*Ceylon Observer*.

SILANI.

A new cover and forage crop from the Philippines.

PROF. HARLAND writes in *Tropical Agriculture*:

The practice of growing leguminous cover crops in coconut plantations is now widespread throughout the Tropics, and new species of Leguminosae are constantly being brought forward for trial. In this connection the *Sugar Central and Planters News*, Manila; P.I.s. of November, 1924, contains an account of the uses of *Vigna marina*, M., both as a cover and forage crop.

Known in the Philippines as Silani the plant is a perennial trailing vine with yellow flowers and small pods of 4 to 7 cm. in length. Seeds are produced somewhat sparingly but the plant may easily be propagated from cuttings

Silani cut as green forage is readily eaten by stock and possesses a high carbohydrate content which may render it of special value for finishing off cattle before placing them in the market.

An area of about 20 hectares is reported to have been the subject of a successful experiment in the use of Silani as a cover crop. The plants do not tolerate well along dry season but make the best growth where the rainfall is of fairly equal distribution throughout the year.

As previously mentioned, the Silani is a sparse seeder and cuttings must be used for planting the crop on a large scale. Planting should be done during the rainy season using cuttings of about 2 ft. in length. Once the plants are established they make a rapid and vigorous growth, and patches of wild plants have been observed to maintain a thick blanket for four years in full sun exposure.

By a curious coincidence the present writer has had this plant, or one very similar to it, under observation more or less sporadically since 1915. It is common in marshes along the seashore in most West Indian Islands and corresponds with the description of *V. luteola*, Benth. It tallies almost exactly with Wester's description of Silani and a few cuttings planted six months ago spread with extreme rapidity for 15 ft. on either side of the ridge. Mr. Wester's suggestion that hybridization of the perennial Silani with its close annual relative the Cowpea, is not likely to bear much fruit, since experiments in this direction have already been tried. Although several hundred crosses have been attempted, the results have been unsuccessful.

A closely related plant, *Dolichos hosei* of Eastern origin is similar to *Vigna luteola* in general habit of growth, and like this plant produces only a small quantity of seed. Hybrids with the cultivated forms of *Dolichos* have been attempted again without success.

In view of the promising results obtained with Silani as a cover crop in the Philippines, experiments on a larger scale will be conducted in Trinidad where its behaviour will be closely studied.

SPRAYING AGAINST BLACK ROT OF COFFEE.

BY T. NARASINGA RAO.

Coffee Planter, Chikmagalur.

As promised by me during the last meeting of our Union I continued the experiments against the Black Rot of Coffee this year also. Prior to the commencement of the spraying, Dr. Leslie C. Coleman and Mr. N. Rama Rao visited my estate, in the month of May, and were satisfied with the results achieved. A noteworthy fact is that though there was phenomenal rainfall during the year 1923, we could see traces of the mixture still adhering to the under surfaces of some of the leaves in the sprayed portion.

During this year, spraying was begun by about the middle of June. As usual, the Agricultural Department was kind enough to spare me the services of Mr. S. V. Venkatarayan, Assistant Mycologist. The necessary chemicals and sprayers were supplied by the Department free of cost and the planter had to supply only the labour necessary to carry on the spraying operations.

This year, I have sprayed a larger area than I did last year. Two blocks of last year's experiment were sprayed with two per cent Bordeaux mixture as before. They comprised about 300 plants. It was suggested to me by Dr. Coleman during his visit, that it would be interesting to watch the results of spraying with a weaker solution. Accordingly, the other two blocks of last year were sprayed with 1 per cent mixture. These also comprised 300 plants. In both the cases the adhesive used was resin. The check blocks introduced last year remained unsprayed as before.

In another portion of the estate where the Rot used to be severe, about 350 plants were sprayed with the 1 per cent mixture and resin as adhesive. Another about 320 plants were sprayed with the same 1 per cent mixture but casein was used as adhesive in the place of resin.

Now as regards the results in spite of the fact that we had unprecedented rainfall in the month of July, all the sprayed portions, irrespective of whether they were sprayed with the stronger or weaker mixtures or whether resin or casein was used as adhesive, were uniformly free from the disease, while the check blocks suffered badly. The sprayed blocks have a heavy crop this year and also good wood for next year.

The final result of these experiments can only be known after the crop is picked. It is only when the crop of the sprayed and unsprayed portions are picked and separately measured that we can correctly estimate the extent of loss that we annually suffer from this disease. I intend picking the crop of the sprayed and check blocks separately, and shall intimate the result to the Secretary of the Union by about the end of January next.

After last year's experiments, I was able to induce some of the neighbouring planters to get small portions of their estates sprayed. The disease had already broken out when we began spraying on the estates of the following gentlemen, namely, Messrs. C. Srinivasa Rao, C. Vasudeva Rao, M. Nagappa Chetty, M. Krishna Chetty, K. Hanumantha Rao, and Sidda Veerayya of Bisagni Mutt. It is gratifying to note that one Ranga, a Panchama servant, who had assisted in spraying operations last year, and had closely watched its effects, got about 150 young plants sprayed on his own estate.

On my reporting to Dr Coleman that some of the planters mentioned above told me that the dropping of crop was heavier in the sprayed than in the unsprayed portion, he was kind enough to send Dr. M. K. Venkata Rao, Mycologist, to inspect all the sprayed estates. We visited them all in the month of September while the disease was still prevalent. We could see that in all the estates there was a marked improvement in the condition of the crop of sprayed over unsprayed plants. Except in the case of one estate the planters themselves were fully convinced that spraying had done immense good to the plants.

I had noticed that in the month of July, when the rains were abnormally heavy, there was a general dropping of the crop both in the sprayed as well as the unsprayed portions. The dropping of the crop during this and the succeeding months, is a general feature of all coffee estates, as evidenced by the experience of several planters, and is due to causes not yet investigated. While the dropping of the berries in the sprayed portion ceased as the monsoon advanced, it continued in the unsprayed portion till the end of September.

The cost of spraying an acre of coffee with the different kinds of mixture, is shown in the following table. It varies according as the plants are pruned or not:—

Cost of Spraying One Acre, 1200 Coffee plants.

Condition of the plants.	Two per cent Mixture.				One per cent Mixture.			
	With resin.		With casein		With resin.		With casein.	
Well pruned	Rs. 18	8 0	Rs. 16	12 0	Rs. 8	4 0	Rs. 6	15 0
Lightly pruned	„	23 2 0	„	20 15 0	„	11 0 0	„	9 4 0

The number of coolies required for spraying an acre of 1200 plants comes to 10. Their charges at the rate of annas 6 a cooly would come to Rs. 3-12-0.

The one per cent mixture with casein is quite as good as any of the others. In addition it has the benefit of cheapness to recommend it. It is much easier to make than the mixture with resin as adhesive because in the latter case the boiling of resin takes full three quarters of an hour with a man constantly at it, whereas the casein adhesive is prepared in a few minutes, and that without any boiling. The cost then varies from Rs. 10-11-0 to Rs. 13 an acre.

LETTERS TO THE EDITOR.

*(The Planters' Chronicle is not responsible for the opinions
of its correspondents).*

DEAR SIR,

U. P. A. S. I. Sports Club.

With regard to the resolution passed at the General Meeting held in Ootacamund on 26th March - that members drawing less than Rs. 450 per mensem, shall be helped with their travelling expenses from Club funds, in order to make it possible for more of the younger members to be present at next years' meet - my Committee are of the opinion, that the wording of the resolution may possibly lead to misunderstandings as to the intention thereof and I therefore ask you to be good enough to publish this letter in your next issue.

The intention is of course, that only those members who are representing the Club or their districts in any game, can apply for help on travelling account.

The resolution as it now stands, reads as if any member drawing less than Rs. 450 can put in for his expenses, should he be only attending the meet for a cheery time and the dances.

One day perhaps, should the Club receive sufficient support even this may be possible, but at present funds are far too low.

Yours faithfully,

G. W. FULCHER,

Honorary Secretary.

An Apology.

The Editor regrets very much the lateness of this week's issue which appears at the same time as the issue of April 25th owing to his indisposition.

The Planters' Chronicle.

Recognised as the Official Organ of the U. P. H. S. I., Incorporated

Secretary's Registered Telegraphic Address "UPASI," MADRAS.

Mr. EDWIN VINCENT.—Managing Editor, Coimbatore,

Telegraphic Address—"CHRONICLE," Coimbatore.

VOL XX. No. 17.]

APRIL, 25TH 1925.

[PRICE AS 8.

CONTENTS.

Coffee Prices	... 255	Deputy Director of Agriculture
Coffee in British East Africa.	257	Planting Districts (Report) 258

PRICE OF "A" COFFEE.

BY CABLE LONDON, 24th April, 1925.

152s./—per cwt. Market Heavy.

COFFEE PRICES.

Our cable this week indicates a slight change, the first that has taken place since March 27th when from "152s/- market flat" we were cabled "155s/- market dull". At that time our London Correspondent pointed out the falling off in coffee deliveries in Europe and the States of over 300,000 Bags as compared with last season thus demonstrating what Messrs. James Cook & Co., described as the "resistance opposed by buyers to Brazil's dictation of prices".

It is interesting to observe the trend of prices last month and early in April. On March 25th we were told that the selling of East Indian was a slow business but that unfortunately continental buyers were beginning to take a hand. There is no doubt that earlier on in the month a good deal of coffee purchased forward by the continent was being delivered direct from source of origin and the export demand in London was therefore practically nil. Coffees with quality, as is generally the case attracted attention, and in this respect the price of Kenya is distinctly worthy of notice. In past seasons we have noted the difference between East African kinds and our own choice lots. This year there has been a considerable levelling up of values witness the auctions for the week ending 25th March. Good averages for comparison were :—

Mark.	No. 1	No. 2	No. 3	PB,
H. C. S. (Mysore)	167/-	151/-	140/6	170/-
Stannmore (Anamallais)	148/-	141/-	130/-	158/-
Corringabetta (Coorg)	144/-	140/-	...	156/6
Valalakarui (Shevaroy)	147/-	149/-	136/-	150/-
Kia Ora (Kenya)	160/-	150/-	142/-	169/6

Uganda on the other hand is this year showing but inferior quality and prices have consequently been poor.

A week later Mysore showed a distinct improvement, one estate (Santavary P. H. & Co.) fetching 170s/- for No. 1, 160/- for No. 2, 153/6- for No. 3, 183s/- for PB and 135s/- for triage. an average of 164s/5d. In spite of some improvement being reported the best Kenya parcel fetched in the same order 162/-, 150/-, 137/-, and 165/6- for PB. Up to 7th April when auctions were suspended for the Easter Holidays a fair quantity of E. I. was up for sale Mysore prices again showed a clean pair of heels to the rest, one parcel averaging 161s/7d. Kenya also showed a distinct advance but although selling higher than Coorgs, Niligris, Shevaroy's etc., was considerably behind Mysore with No. 1, other grades being about equal.

Auctions having been resumed on 21st instant, our cable may be taken to apply to the first sales after the holidays. It was expected that the interim would be sufficient to allow buyers to use up their stocks in hand to a sufficient extent to incline them to purchase more freely. On the other hand, in the absence of auctions, there would be some accumulation of coffee for sale. The cable may therefore be read as indicating a well balanced market.

COFFEE IN BRITISH EAST AFRICA.

In connection with the figures published last week the following may be of interest:—

Coffee. Total acreage planted, age of trees in Plantations and actual yield of clean coffee for the twelve months ending 30th June, 1924 in the Colony and Protectorate of KENYA.

	Total area planted on 30th June 1924.	Age of Trees.			Total production 1923-24 crop.	1st July 1923 to 30th June, 1924.
		Up to 3 years.	3 to 6 years	Over 6 years.	Clean Coffee.	Buni.
	Acres.	Acres.	Acres.	Acres	Cwts.	Cwts.
KENYA COLONY.	60,054	27,883	13,269	18,902	129,971	14,981
Kenya Province	37,522	14,802	8,519	14,201	107,663	11,803
Fort Hall	8,842	5,062	1,382	2,398	15,028	2,901
Kyambu	26,033	8,417	6,659	10,957	85,553	8,601
Meru and Embu	6	0	1	5	19	5
Nyeri	2,641	1,323	477	841	7,063	296
Naivasha Province	10,904	7,213	1,912	1,779	7,451	1,121
Eldama Ravine	132	131	0	1	0	0
Laikipia	27	27	0	0	0	0
Nakuru	1,052	627	215	210	1,377	470
Trans-Nzoia	6,491	4,715	1,126	650	3,093	402
Uasin Gishu	3,202	1,713	571	918	2,981	249
Nyanza Province	10,450	5,373	2,659	2,418	10,924	1,309
Kavirondo North	777	552	195	30	266	41
Kavirondo South	6	4	2	0	9	0
Kisumu	7,433	3,120	2,192	2,121	9,474	847
Lumbwa	1,877	1,360	270	247	1,119	417
Nandi	357	337	0	20	56	4
Ukamba Province	1,178	495	179	504	3,933	748
Machakos (Ulu)	673	345	60	268	2,037	473
Nairobi	332	29	79	224	1,646	260
Voi	173	121	40	12	250	15

DEPUTY DIRECTOR OF AGRICULTURE PLANTING DISTRICTS.

We have received the following very interesting report from Mr. Muuro. The graphs to which he alludes are in course of preparation and will be issued separately next week.

Dis. No. 100/25.

Office of the Deputy Director of Agriculture,
Planting Districts,

Agricultural, College, Lawley Road, P. O.,

Dated 11th April 1925.

From

D. G. MUNRO, Esq., B. Sc.,
Deputy Director of Agriculture,
Planting Districts.

To

The Chairman,
Executive Committee of the
United Planters' Association of Southern India.

SIR,

Administration Report for 1924—25.

I continued to be in charge of the Section during the year. On the 6th June 1924, M. R. Ry. V. M. Ramunni Kidavu went on leave and was eventually transferred from this Section to the VIII Circle. Otherwise there were no changes in Subordinate Staff.

2. The following officers were on leave during the year for the periods mentioned against their name.

(1) M. R. Ry. C. S. Madiab, Farm Manager, Coffee Experiment Station, Sidapur.—Leave on average pay for 1 month and 26 days and leave on half average pay for 1 month and 4 days from 16-3-'25.

(2) M. R. Ry. K. W. Chakrapani Marar, Farm Manager, Rubber Experiment Station, Tenmalai.—Leave on average pay for one month from 21-5-1924 to 21-6-1924 and again for 15 days from 3-1-1925 to 17-1-1925, with permission to pre-fix Christmas holidays,

(3) M. R. Ry. V. M. Ramunni Kidavu, Assistant Farm Manager, Peermade.—Leave on average pay from the fore-noon of 6-6-1924 and then transferred to VIII Circle.

3. Under the new conditions initiated during the year, the whole of the Planting Districts Staff has been seconded for duty under the direct control of the United Planters' Association of Southern India and the following changes in organisation carried out or initiated.

(1) The Deputy Director of Agriculture, Planting Districts, now termed the Scientific Officer, will be a touring Officer for Tea and Coffee

(2) A new Tea Specialist has been appointed and has already arrived in India and has proceeded to Tocklai for a course of study in Tea. He will be in direct charge of the new Tea Station that is to be opened in the Nilgiri-Wynaad and the Peermade Station will be shut down.

(3) Financial assistance has been given to the new Coffee Experiment Station in Mysore and it is proposed to shut down Sidapur Coffee Station, when the Mysore Station gets properly started.

(4) Mr. Ashplant, the Rubber Mycologist, on his return from leave, will take over the Rubber Stations.

(5) Government have subsidized the United Planters' Association Scientific Department to the extent of Rs. 28,000. Further necessary funds have been raised by a cess of 8 annas per acre on Tea and 2 annas per acre on Coffee.

4. *Coffee.* Crops were fair on the whole and excellent prices ruled during the earlier part of the season. Prices, later on decreased, but generally, the last year may be looked on as quite a profitable one.

Leaf-disease is always with us and Blackrot took its toll. Spraying has been done by planters in several districts on a fairly large scale, but results are not in hand in time for inclusion in this report.

Black-bean disease has not been nearly so prominent this year as it was last year and better out-turn generally were obtained in districts which were affected last year.

Various experiments have been carried out in the past number of years on the Experiment Station and this year I propose to try and co-ordinate these results.

5. Any healthy plant may be considered as a balanced organism. The roots take up raw food materials from the soil and these raw substances are transferred to the leaf for manufacture by the energy of the sun into materials suitable as food for the plant. The leaf then is the great manufactory for plant food and therefore controls the feeding and stores for the remainder of the plant.

There are two main ways in which the plant can be starved :

(1) Through the failure of the roots to obtain a sufficient supply of raw material.

(2) Through the failure of the raw materials to be manufactured into plant food.

(1) The roots may fail to obtain sufficient food if soil conditions are not correct, i.e., in the case of water-logging when the plants are said to be suffering from *wet feet*. It may also happen that the root system is so poorly developed or the soil itself is so poor that sufficient food materials cannot be obtained. Cultivation and manuring are thus necessary.

In the case of root diseases too, the plant is starved through lack of sufficient food. In this case, the actual tissue of the root may be destroyed to such an extent that the plant itself will have to be removed and destroyed, conditions suitable for fungus growth changed by liming, the spread of the disease arrested by trenching and a young plant put out to take the place of the old one.

(2) Provided there is sufficient supply of raw material, the plant may also starve through its inability to manufacture these into suitable food for itself. This is occasioned through lack of sufficient leaf or through climatic or other conditions which do not allow of their proper functioning. Generally speaking, leaf holds the balance in the internal economy of the plant. When conditions are good, leaf increases, when bad, it decreases or remains stationary. In the coffee districts generally, in South India, there are two main periods of growth. One in April—May and the other in September October. This does not necessarily mean that no growth takes place during the other periods of the year, but these are the 2 main seasons when conditions are sufficiently good for the start of young shoots from buds and during the other periods of the year any growth there is generally takes place on shoots produced at these periods.

Tea which is grown for leaf production only clearly shows these variations. From a glance at the appended graph showing monthly percentage yields of Tea it will be seen that the periods of greatest vegetative production are just before and just after the South-West Monsoon. During the heavy rains of the South-West Monsoon and during the dry season, January, February and March, less vegetative growth takes place and lower yields are obtained. It would be unsafe to argue that production of Coffee vegetative growth would bear the same monthly proportion as Tea, as Coffee is a shallower rooting plant altogether than Tea is and consequently would probably have a smaller percentage growth during the dry weather, but shading and mulching would here play their part. Graphs of production of green Tea leaf and comparative rainfalls of a Tea Estate in the Anamalais and a Coffee Estate in North Coorg are annexed.

Every time tea is plucked and a certain amount of leaf is removed, a proportionate amount of root is thrown out of action and cast off in order to restore the balance of the plant. If plucking is too hard and too much leaf removed, the effect may be so serious as to cause the bush to stop flushing and shut down to try and recuperate.

When pruning is done, the whole of the root action is stopped and all the small feeding rootlets are cast off. With the collar pruning of Coffee, the same type of thing occurs, (See *Planters' Chronicle*, No. 9, Volume XIX dated 1-3-1924.) and all the smaller root hairs are cast off. If the plants take a long time to throw up suckers, a considerable amount of dying of the roots may take place. The feeding root system adjusts itself in size to the size of the leaf area whatever that may be.

6. *Effect of leaf disease.* The effect of loss of leaf due to leaf disease on the root system of Coffee may be described as similar in effect to the plucking of leaf in Tea, a certain amount of the feeding roots are cast off to restore the balance.

During the Monsoon, leaf-disease and Black-rot may be considerable and again there may be a bad attack of leaf-disease during the dry weather. The probable sequence of events during the year will therefore be:—

- (1) Good growing period—April/May—Leaf produced.
- (2) Poor growing period—Monsoon—Disease—Loss of leaf.
- (3) Good growing period—September/October—Leaf produced.
- (4) Poor growing period—Dry weather—Disease—Loss of leaf.

The life of a coffee leaf varies. Butler (*Fungi and Disease in Plants*, page 470) reckons the life of a coffee leaf to be 18-20 weeks. In Java, the length of life is supposed to be 18-20 months. I have seen leaf on some of Kent's plants which from the age of the tree and the position of the leaf could not have been less than 18 months. Leaf artificially protected against disease by spraying will carry on for about a year. Without such protection, the life of the average leaf is very much shorter and after each of the main flushing seasons the coffee leaf may be attacked by disease and lost. The plant is denuded of the leaf area necessary for the production of manufactured food and it does not get the return from each leaf that it should.

Not only so, but twigs denuded of leaf are only capable of feeding themselves to a very small extent. They are thus weakened and laid open to attack by die-back disease, which naturally decreases the possible crop bearing area. In observing the effect of leaf disease, it is generally noticeable that in ordinary Arabica, the younger leaves at the end of the twig stay on while the older leaves get diseased and drop. From observations on the Experimental Station, Kent's seemed to be more disease resistant than Jackson's and ordinary Arabica seemed to be mid-way between the two. Analyses were made of the leaves of the different varieties. The results are as follows:—

TABLE NO. 1.

			Kent's.	Jackson's.	Ordinary Arabica.
Calculated on substances dried at 100° C.					
Organic matter	...	...	91.77	89.99	89.78
Ash	...	..	8 23	10.01	10.22
Insoluble mineral matter	...	...	0.19	0.25	0.24
Nitrogen.	...	...	2.73	3.52	3.42
Lime (CaO)	...	...	2.12	2.27	2.23
Magnesia (MgO)	...	...	0.61	0.52	0.61
Phosphoric acid. (P ₂ O ₅)	...	...	0 41	0.52	0.51
Potash (K ₂ O)	...	...	2.11	2 83	3.27
Initial moisture	...	...	61.54	65.05	62.45
Ether extract	...	...	4.88 %	4.53 %	5.31 %

It may be noticed that Kent's is poorer in Nitrogen, Lime, Phosphoric acid and Potash than either of the others. The ratio $\frac{\text{Nitrogen}}{\text{Potash}}$ 1.29, 1.55, 1.53 is distinctly interesting. It was also thought that some change might take place in the leaf as it gets older, which would render the actual entrance of the leaf disease mycelium into leaf more easy of achievement. Experiments were started to find out if any differences could be detected.

The examinations were carried out by M. R. Ry. M. K. Thomas at Sidapur and while his results are not conclusive, they are interesting. He found that in the young leaf round each stoma there were a certain number of small wax globules. As the leaf gets older, these small globules tend to fuse into larger globules and the rate at which this happens is quicker in the lower resisting varieties. In Kent's the rate of fusion is slower.

Whether these wax globules have any protective effect on the stomata or whether they have any initiative effect on the growth of the disease mycelium is not known. If they do act in either of the above ways, then their action would seem to be due to their distribution rather than their amount as the ether extracts from the leaves of different varieties show that Kent's is lower than ordinary Arabica. Table No. 1.

7. *Effect of cross.* The main object of a plant in producing seed is to carry on the species. Each seed contains the embryo of a young plant in addition to a sufficient supply of concentrated food materials to enable the young plant, when it germinates, to carry on until such time as it has formed its own roots and leaf and is capable of sustaining a separate existence.

The production of fruit or seed entails a very considerable strain on the plant, for not only has it to obtain and manufacture and store food in all the seed produced, but to remain healthy, it has also to maintain its own tissues and produce new wood and leaf for the following year's crop. The better the climatic conditions under which it works and the more fertile the soil, the greater the ease with which it can perform its task. If a plant is bearing heavily, with limited means at its disposal, it primarily bends its energies towards filling and ripening its crop, its own tissues are more or less starved and the production of new wood and leaf is curtailed.

An interesting example of this was noted on the once sprayed plot at Sidapur in 1923-24. This plot yielded at the rate of 18 cwts. per acre and on examination after crop, it was found that all the branches which had borne heavily i. e. those at the top, had lost all their leaf, both sprayed and un-sprayed, and the leaf that still remained on the trees was the sprayed leaf carried on the underneath branches which had not borne so heavily.

The fact that the sprayed leaf had fallen off the heavily bearing branches showed that this leaf-fall was not due to disease. It therefore follows that there is a limit up to which the plant can bear crop, beyond which, it loses its leaf without the incidence of disease. In this particular case, it was 18 cwts. per acre, but these trees are now getting on in years (about 40) and have not been manured since the Station was taken over in 1919, nor, I understand, for at least 9-10 years previous to that.

Spraying experiments have definitely proved that by preventing disease yields may be raised considerably without manure and without any ill effects on the plants, but the heavier the crop, the greater the strain on the plant and the greater the effects of disease. With the incidence of disease and consequent loss of leaf, crops decrease, as the plant is not capable of bearing heavy crops and fighting and replacing leaf damaged by diseases at one and the same time. It is therefore evident that there is a close relationship between the amount of leaf and the amount of crop and raises the question of pruning.

If a sufficiency of leaf could be kept on the bushes, then pruning could be done with beneficial results. Where, however, diseases come in, and every leaf is of value to the bush, it has been found profitable to leave miserable whippy twigs for the value of their leaves alone and not for their crop producing powers. It has been found in practice that within limits non-pruning or very light pruning gives better and more regular yields than heavy pruning and it seems probable that this result is obtained from the greater amount of leaf obtained in this way.

8. This does not seem to take place in the actual production of blossom. General observations in the fields go to show that coffee which bears a larger amount of leaf through the dry weather will set a greater percentage of its blossom and carry it through to harvest, i.e., of two totes on similar soil getting similar rainfall, one was bare of leaf during the dry season and when the blossom showers came, produced a blossom which was estimated by experienced men to be 150 tons—an ultimate yield of 40 tons was obtained. The other tote had a much greater amount of leaf during the dry weather and the same men estimated crop at 100 tons. An ultimate yield of 80 tons crop was obtained. No details are available to show whether the large loss of crop in the first instance is due to non-fertilization of the flowers or due to diseases like Black-rot and die-back where the stems are affected and the berries drop off.

The difference in yield of crop evidently does not always take place in actual production of blossom. It may take place at any of the following points : --

(1) Fertilization may not be so good resulting in a smaller proportion of the blossom being set, or

(2) The plant may naturally drop some of its crop after setting, or

(3) The plant being short of leaf and of the facilities for food manufacture, may be weaker in resistance to diseases and a greater proportion of branches and berries may be attacked by disease and drop off.

Figures from the spraying experiments at Sidapur seem to show that diseases play a large part in the reduced yield of crop. In 1923-24, besides the large difference in total yield between the controls and the sprayed plots, $3\frac{1}{2}$ cwts. per 1,000 trees on the controls as against nearly 12 cwts. per 1,000 trees on the sprayed plots, the percentage of lights on the controls averaged 12.65 per cent as against 8.5 per cent on the sprayed plots, a difference of 4 per cent in favour of the sprayed plots.

Lights may be produced in two main ways.

(1) Due to diseases like black-rot (*Koleroga*) and Die-back (*Colletotrichum*) helped by leaf disease killing off the leaves and getting on to the weakened branches and possibly infecting the stems of the berries and making them drop or if they stick on to the branch preventing them getting a sufficient supply of food to fill them out properly.

(2) Due to "black-bean" disease which is considered to be a bacterial one and does not seem to affect the branches and leaf like the bacterial disease known as "Black-arm" of Cotton. The mode of entrance into the berry has not been discovered and one or both beans in a berry may be affected. Climatic conditions largely control its spread. It seems to be found only under conditions similar to those suitable for the spread of Black-rot, viz., High humidity, mist and rain. If these conditions cease, then the spread of the disease in the bean seems to cease and spotted beans are found.

Leaf disease and *Colletotrichum* are able to thrive under more varied conditions and a dryer atmosphere.

Examination of fallen berries during Seetember showed that while a proportion of them were affected with black-bean disease, the bulk of them were affected by other diseases like black-rot and *Colletotrichum* and all the lights or "Jeloo" did not show the symptoms of black-bean disease inside. It is also noticeable that in a Black-bean year many of the diseased berries ripen up just like normal berries and it is only in the pulping that the proper amount of loss due to the lights can be estimated. In one case on a perfectly healthy looking branch with good wood and good leaf every berry out of a total of over 50, when cut open were found to be diseased. In an ordinary year where Black-rot, Die-back and such diseases are prevalent a proportion of the crop drops on the ground and does not appear to any extent in the pulping.

In some years the loss in crop which falls before ripening during the season is appalling and planters have written stating that the ground looked as if carpeted with green berries. It would therefore appear that even if a considerable portion of the blossom does not set, huge losses do take place between setting of the blossom and picking of crop.

Spraying not only increases the leaf area or more correctly increases the length of life of the leaves produced and so improves the whole tone of the plant, but also reduces directly the loss of crop which occurs between setting of the blossom and time of harvesting by prevention of diseases on the berries themselves.

Experiments with dry sprays could not be carried out at the proper season owing to the late arrival of the necessary materials from England.

Comparisons of Kent's and Jackson's Hybrids on the Experiment Station were continued. Tables showing results up to March 1925 are given below :-

TABLE No. 1.

Average number of leaves per primary.

	1923		1924		1925
	March—September		March—September.		March.
Kent's	6.4	14.2	6.52	12.9	1.93
Jackson's	2.4	12.2	2.10	20.54	2.42

TABLE No 2

Number of primaries, healthy and unhealthy.

	1923			1924		
	March.			September.		
	Heal- thy	Unheal- thy	Total.	Heal- thy	Unheal- thy	Total.
Kent's	465.5	4	469.5	463	3	466
Jackson's	405.0	20.7	425.7	385.7	38.2	424

	1924			1925		
	September.			March.		
	Healthy	Unhealthy	Total.	Healthy	Unhealthy	Total.
Kent's	396	35	431	349	65	414
Jackson's	183.2	111.2	294.4	177	105	282

TABLE No. 3.

	1923—24			1924—25		
	Per plot	Per acre	Per 1000 trees.	Per plot	Per acre	Per 1000 trees.
CROP PRODUCED IN						
Kent's (Plot 6)	1122.7	1122.7	585.7	802.2	802.2	650.0
Jackson's (Plot 7)	494.9	494.9	348.7	108.0	108.0	87.2

These figures show that all over Kent's does better than Jackson's.

It is interesting to note that up to March 1924, Kent's led in the number of leaves per primary. In September 1924 and March 1925 counts, Jackson's led. The extra amount of leaf which fell off Kent's might have been due to the extra crop borne.

Both plots were limed at the rate of 1 ton per acre in February 1924 and both had a bad attack of leaf disease later on in the season. It is possible that the lime held up a certain amount of potash, which according to Ehrenberg does happen in cases where potash content is low. It has also been noted by planters in certain districts that a bad attack of leaf disease often follows a heavy dressing of lime and small doses 300-600 lbs. per acre are used. In other cases however up to 2 tons per acre slaked lime have been used without any effect as described. The point is interesting and deserves further attention. It must be noted that even if there is an effect on the bushes, it is only temporary and if it is due to the holding up of potash by the lime, an application of potash at the time of liming would probably overcome the difficulty.

When starting selection work in Kent's, it was found that there were various types of plants and two main types were selected for experimental work and comparison

"A" type similar to Coorg.

"B" type similar to Chick.

In the former it was found that generally the secondaries were produced at a much earlier period than in 'B' type and average yields from 10 selected plants for the last two years show that 'A' type produce more crop. Figures are shown below:

Statement showing the yield of KENT'S A and B typed plants for the year 1924-25.

Type of plant.	Plant No.	Date.	TOTAL.		Remarks.
			Number of fruits.	Weight lb. oz.	
A.	A 1	13-11-'24	1073	3 4 70	Used as seeds being self fertilized.
		(green)	153	5.46	
...	A 2	...	614	1 11.36	
...	A 3	...	88	0 3.90	
...	A 4	...	170	0 7 58	
...	A 5	...	351	0 15.87	
...	A 6	...	210	0 9.14	
...	A 7	...	191	0 8 45	
...	A 8	...	651	1 10 06	
...	A 9	...	289	0 13.55	Selfed and used as seeds. do.
...	A 10	...	1044	3 5.59	
Total			4834	13 15.66	

A1, A9, & A10 Deduct selfed
coffee

2406 7 7.85

BALANCE 2428 6 7.81

Sound cherry 2182 6 0.92

Lights 246 0 6.89

Total 2428 6 7.81

B Type B 1 13-11-'24 91 0 3.53

... B 2 ... 33 0 0.93

... B 3 ... 255 0 11.04

... B 4

... B 5 ... 49 0 2.53

... B 6 ... 116 0 5.55

... B 7

... B 8 ... 6 0 0.31

... B 9 ... 109 0 4.33

... B 10 ... 105 0 4.29

764 2 0.51

B 5 and B 8 Deduct selfed
coffee

55 0 2.84

Balance 709 1 13.67

Sound berry 627 1 11.24

Lights 82 0 2.43

Total 709 1 13.67

A type producing more secondaries has a bigger possible crop bearing area and more leaf than B type. In the 3rd and 4th years, while B. type were still only producing crop on the primaries, A type was producing on the primaries and secondaries thus giving a wider distribution of crop and thus will not tell so heavily on small areas where crop is concentrated as in B. type.

There are great differences in the amount and position of wood produced and it is being kept in mind that the greater the amount of good strong wood produced the greater is the possible crop bearing area and possible crop provided there is sufficient leaf to carry it through.

3 plants of 'A' type and 2 plants of 'B' type were self-fertilized this year. The 'A' type plants set a fair amount of seed but the B type plants set very few, one plant only 3 berries. The seed from each tree has been kept separately and $\frac{1}{2}$ have been germinated and put in baskets at Sidapur and $\frac{1}{2}$ have been transferred to the Mysore Coffee Station.

9. The manurial experiments on the Station were carried on as usual. The all round manured and compost manured plots look the best.

10. *Tea.* The year under report was a boom year for tea. Yields were good and prices excellent.

11. I was on tour in Assam during the months of September, October and November and visited Tocklai Experiment Station and various planting districts. A report on this tour has already been submitted for publication.

A considerable amount of information was collected about climate in different districts and the effects of temperature, rainfall, etc. on leaf production. Maximum and minimum temperatures for different districts are difficult to obtain and it would be well if planters kept more records to this end.

Graphs are appended showing what is probably average maximum and minimum temperatures, rainfall and the rise and fall of crops during the year.

12 In some of the lower elevation districts branch canker is very bad. It has been observed that pruning earlier in the year so as to have a cover of young leaf on the bushes before the hot weather of January, February and March comes on reduces the amount of (what is loosely termed) "sunburn" and branch canker. Figures were obtained which go to show that early pruning as suggested does not reduce crop. If pruning is done in August September, instead of December, any crop lost in September October flush is made up for in the April May flush. More experiments in this direction have been started this year and comparative figures of yields from pruning to pruning will be of the greatest interest.

In the higher elevation districts, sun-burn and branch canker are not so evident as in the lower elevation districts.

Another cause of great damage is due to the dying back and rotting of pruning cuts. When pruning is done the first thing the plant does is to rush up antiseptic substances like gums, resins, etc., in order to fill up the pores. If pruning is done in the dry weather,

the ends of the branches are inclined to dry out and innumerable small cracks appear in the wood. These cracks give an entrance to fungi and rain and once they obtain an entrance, it is difficult to stop them. An application of Bordeaux paste to the wound immediately on cutting helps very largely in preventing the entrance of the fungi and should be practised on a very much larger scale than it is at present,

Experimental work is also being carried out in order to obtain comparative figures for pre-Monsoon and post-Monsoon applications of manures. This question is of very material importance at the present time as owing to the strong financial position more money is available for returning to the soil in the shape of manures.

13. Experimental work with green manures has been continued. Demonstration plots of various kinds have been laid out on the Tea Experiment Station for comparative purposes. It has been found difficult to establish green manure crops in some districts owing to the very heavy rainfall during the Monsoon and the dry weather at the beginning of the year and very decided checks to growth are found during these periods.

14. During the last year doubts were raised as to which tea mosquito bug, *Helopeltis theivora* or *Helopeltis antonii*, is present in South Indian affected districts. Arrangements have been made to get the matter settled by Mr. Andrews, the Indian Tea Association Entomologist. In the few samples already sent he reports that both bugs are present.

Helopeltis antonii is the bug which does damage in Java and Mr. Ashplant has given a clear and concise report on the value of alternate line pruning in prevention of attack. The Indian Tea Association Scientists are working on the variations in soil solution at different water contents and the effect of such variations on the bush.

D. G. MUNRO,

Deputy Director of Agriculture,
Planting Districts-

The Planters' Chronicle.

Recognised as the Official Organ of the U. P. H. S. I., Incorporated

Secretary's Registered Telegraphic Address "UPASI," MADRAS.

Mr. EDWIN VINCENT.—Managing Editor, Coimbatore,

Telegraphic Address:—"CHRONICLE," Coimbatore.

VOL. XX No. 18.]

MAY 2ND 1925.

[PRICE AS. 8.

CONTENTS.

	PAGE.		PAGE.
Monthly Market Notes by		West Coast Planters'	
"Eothen" ...	271	Association ...	282
Coffee Production in Jamaica.	275	U. P. A. S. I. Statistics	
Ceylon Tea Exports to the		Shipment of South Indian	
United Kingdom ...	278	Produce during March '25.	284
Govt. Cinchona. Department.	278		

PRICE OF "A" COFFEE.

By CABLE LONDON, 1st May, 1925.

152a/—per cwt. Market Steady.

MONTHLY MARKET NOTES, BY "EOTHEN".

London, April 16th, 1925.

Tea Market. The Tea Market has been uncertain during the past month. At one time it looked as though it was going to drop away altogether, despite the artificially restricted offerings at the Indian and Ceylon weekly auctions. During the last week in March, however, prices recovered sharply and a better tone was in evidence.

The market was favourably impressed by the action of the Indian Tea Association and of the Ceylon Association in London in publishing resolutions urging Indian and Ceylon producers to pay the greatest attention to quality in their teas and to avoid like the plague anything approaching coarse plucking. Considerable publicity was given to the gloomy prophecy of a well known firm that we were in for another slump like that of 1920, unless producers loyally co-operate in this important matter of putting as far as possible only quality teas on the market. It cannot be denied that Ceylon appears to have offended in the matter of over-production, for the Ceylon

crop, as you must have already noticed, was nearly twenty million pounds up on that of the preceding season. The Indian gardens, too, must have plucked pretty freely for, despite the bad weather, the crops were about the same as those of the preceding year. Of course, it must have been a great temptation last year to pay lip service to the anti-coarse-plucking cry, while at the same time losing no opportunity to take advantage of the high prices then being obtained. One cannot have it both ways, however, and producers must by now have realised that they have really bought the slump upon themselves. Fortunately, the fairly prompt action taken by the Indian and Ceylon Associations appears to be having a good effect and the situation is not viewed quite so pessimistically as was the case a few weeks ago.

In the matter of the artificial restriction of the weekly offerings, however, opinions are not so unanimous. Following the lead of the Indian Tea Association, the Ceylon Association has recommended to members that printed quantities might be increased from 12,500 chests to 20,000 chests weekly up to Whitsuntide. This is still considerably less than the normal offerings would be. More than one authority has expressed the opinion that it seems futile in the face of the larger supplies to engineer a short-lived rise in price by rationing the market.

The following are the averages up to the last sale (April 3rd): —

	1925	1924	1925	1924.
	Week Ended	Current	January 1 to	January 1 to
	April 3rd	Week.	April 3.	April 3.
Northern India	1/4.70d.	1/5 31d.	1/6.83d.	1/5.56d.
Southern India	1/5.91d.	1/5.17d.	1/6.43d.	1/5.73d.
Ceylon	1/8 02d.	1/8.35d.	1/8.16d.	1/7 87d.
Java	1/0.81d	1/1.30d.	1/1.73d.	1/2.54d.

The Board of Trade figures of tea statistics for March are now issued. Imports are more than 3,000,000 lbs. higher than the corresponding month of last year but deliveries are 11,000,000 lbs. in excess. Stocks have declined about 3,000,000 lbs. during March. The following are the figures :—

Imports.		Deliveries.	
1925	1924	1925	1924
32,830,237 lbs.	29,642,777.	35,993,619	25,023,846 lbs.

The stock in bond in the United Kingdom at 31st March was 231,516,000 lbs. as compared with 191,442,000 lbs. last year.

The market is closed for the Easter holidays.

Rubber Market.—Those people who, in January, were talking of rubber up to 1/9d. have now every reason to be satisfied with themselves. It is true that the market took rather longer to wake up than had been anticipated, but towards the end of March the steady weekly reduction in the London stocks caused American and Continental

consumers to become a little anxious and to compete for supplies of rubber for spot and near delivery. After being done at 1/9½d for spot on Monday, March 30th, the market was a little easier on March 31st, but still over 1/9d. On April 1st, however, (a very good date) the market suddenly broke to the extent of a full penny and in the case of certain forward positions very nearly two pence. This sudden setback, which appeared to take the market completely by surprise, was at first attributed to the effect of heavy selling in Liverpool by speculators there who had come down rather badly over wheat and cotton. It soon became evident, however, that there was more in it than that and heavy liquidations continued for two or three days. The dealings were, to a large extent, paper dealings, speculators, who had bought April-June, presumably around 1/5d., very wisely taking their profits. Some brokers claim that there was an organised bear attack on the market. At all events it is only natural when a commodity has had a very sharp rise for such setback, owing to legitimate selling, to occur. Moreover, those who deal in rubber are never surprised at anything.

The higher prices realised are producing the usual outcry from the American consumer and the Firestone Company, through one of its officials, has again bitterly attacked Great Britain for fining poor down-trodden America goodness knows how many millions of dollars owing to possessing the monopoly of rubber production. One would imagine from the Firestone representative's speech that the Dutch own no plantations at all. We did not hear anything about a monopoly last year when rubber was around 9d. per lb. The old cry that America should grow her own rubber was again raised. Considering that the long and expensive investigation carried out by the order of American Government into the prospects of America growing her own rubber in the Philippines or elsewhere has apparently come to nought, this cry seems rather futile.

The latest attack on restriction comes from Sir Eric Geddes who, in his speech at the Dunlop Rubber Company meeting, suggested that with the rapidly diminishing stocks, restriction, which was brought in as a temporary measure, ought shortly to be abolished. Sir Eric was supposed to be talking on behalf of Dunlop Rubber Plantations Ltd., the rubber-growing subsidiary of the Dunlop Rubber Company. Obviously, however, he was speaking more from the point of view of the consumer, who wants cheap rubber, rather than of the producer who desires to sell it at a remunerative price.

The London rubber stocks have been heavily reduced during the past month, some of the weekly declines being indeed remarkable especially that of last week, when despite the intervention of the Easter holidays, London stocks were over 1,000 tons down. The following are the Port of London figures :- Landed in London last week 1,045 tons, delivered 2,073 tons, stocks 15,488 tons against 55,275 tons a year ago and 61,724 tons in 1923. The excessively heavy shipments from Malaya in March have caused a certain amount

of concern but it is understood that dealers' Singapore stocks have declined. Moreover, the American consumption figures for the first quarter of this year are satisfactory. The producers' prospects for the remainder of the year seem to be bright.

Coffee.— There has been something like a revolt by buyers against the high prices for coffee, and markets have been duller and easier. A letter from America puts the situation very well:

"Buyers are stubbornly resisting the market, refusing to buy, or bid, and all seem determined to let their stocks run down and out, rather than enter the market and make further purchases upon the present level of values; business with them has fallen off to a very large extent, everything seems to be at a standstill, and as a result, they have no encouragement to increase their holdings."

Brazil has been forced to lower her offerings to do business while that frame of mind persists. When a little buying is encouraged she advances prices again, for she is very confident of the strength of her position, with stocks so low and a small crop coming. The result is a market virtually deadlocked, with alternate declines and advances and *Commerce and Finance* of New York thinks it is difficult to see how it can go very far either way in the immediate future. The New York coffee roasters passed resolutions deprecating campaigns against the high prices of coffee which some of the trade have originated, as being attacks on their own business.

Mincing Lane reports allude to the Brazilian weakness where, in spite of the heavy decline of superior Santos, buyers are inactive and, as is usual, when prices are falling unfavourable forecasts are being made. According to Messrs. James Cook & Co., although there has lately been a tendency to lower estimates of the next Santos yield to 8 and 9 million bags, larger crops are spoken of from other centres of production in Brazil, inasmuch as currency is being given to estimates of 4 million bags for the next Rio crop, 1,400,000 bags for Victoria and 500,000 bags for Bahia. Perhaps the most disappointing feature of the past month is revealed by Messrs. Durring and Zoon's statistics which show an increase during March of 233,000 bags in the world's visible supply and deliveries during the same month which again show a large diminution compared with a year ago both in Europe and the States. Supplies in auction in London have been plentiful and the course of our market has been somewhat erratic. Kenya coffee, owing to diminishing arrivals, has sold readily at firm prices but other descriptions have been subject to much irregularity. During the earlier part of the period under review home traders, apart from Kenya coffee bought very sparingly whilst exporters confined their attention to parcels significant for colour and size. This situation produced a period of generally declining prices but recently the lower level of values has attracted our home trade buyers whose purchases have transformed our market into a steady if not firm one.

COFFEE PRODUCTION.

In Jamaica.

The Imperial Trade Correspondent at Kingston (Mr. J. Cormack) reports through the intermediary of the Department of Overseas Trade that no definite statistics are available in connection with Jamaica coffee. Even "Blue Mountain Coffee" is not a fixed quantity. A great deal of coffee is bought in the lower districts and valleys of the Blue Mountains which is sometimes classed as Blue Mountain Coffee, but is by no means up to the standard of good Blue Mountain coffee either in appearance or in quality, especially flavour.

The Blue Mountain coffee estates all suffered from a succession of four hurricanes in three years sometime ago, and are only now showing some signs of recovery. This year their output will probably be over the average of the past four years, but this will be below the average of a period of, say, twenty years back. An average coffee crop for Jamaica would be about 50,000 cwts., of which not quite 10 per cent. would be classed as Blue Mountain. It has been possible to obtain the actual figures (given below) for six of the Blue Mountain coffee estates, which produce nearly two-thirds of the output of this grade in the Island. "Purchased Coffee" means coffee bought from small settlers, which, while it could not strictly be classed as first class plantation, is, when treated by a similar process, very nearly as good.

Blue Mountain coffee is usually put up in barrels of 200 lbs nett each, and the crop is usually reckoned in tierces, a tierce being 800 lbs. With regard to the outlook for this year's crop, it may be said that owing to the particularly good weather conditions during the past few months, and to the prevailing good prices, the properties have been better cared for, and it is anticipated that next year will bring forth quite a large crop. This present crop is reckoned to be about medium in quantity and quality.

The Trade Correspondent adds that while there are considerable tracts of land available for planting and growing the best Blue Mountain coffee, and some of the larger estates are being extended in a small way, it is doubtful if the total acreage is increasing to any extent. A great deal more could be done if the business were handled in a systematic way, with sufficient capital to keep up cultivation until such time as the crop can be reaped. Outside of the large estates, the increase in acreage is usually brought about by tenants renting land and planting coffee. After about four years the coffee begins to bear and the acreage is taken over by the larger estates, while the tenants are given fresh land on which they grow mixed crops simultaneously with the establishment of coffee plantations. Although slow, this plan has proved most suitable in the Island.

PRODUCTION OF BLUE MOUNTAIN COFFEE ESTATES, JAMAICA,
BARRELS.

	1921	1922	1923	1924
Moy Hall	... 236	34	136	122
H. C. Shekell	... 113	100	74	126
C. V. Munn	.. 225	250	218	146
W. H. Landale	... 238	89	156	99
Do. Purchased Coffee	... 229	259	128	140
Mavis Bank Central do.	... 312	263	124	79
Total	... 1,353	995	836	712

In Portuguese West Africa.

The following particulars, furnished by His Majesty's Consul-General at Loanda, in a report dated February 12, 1925, has been furnished by the Department of Overseas Trade:—

In the Amboim region the Companhia do Amboim gathered some 750 tons of coffee last year, and the total crop of the region is computed to have been about 2,700 tons. For the present year the Company estimates that the corresponding figures will be about 1,200 and 3,000 tons respectively. This region is more favoured than the coffee growing districts farther north—Cozenço and Encoje—in that it is much nearer the coast, and once it is reached by the railway now under construction from the port of Benguela Velha (Porto Amboim), which should be before very long, the production of coffee in the region may be expected to develop rapidly. The existing plantations of the Companhia do Amboim should give a return of about 3,000 tons when producing fully, while those in the whole region should similarly produce about 7,500 tons. It is calculated that there are about 125,000 acres of land suitable for coffee growing in the region.

The Companhia de Cazengo gathered some 450 tons of coffee last year and estimates that the total production of the Cazengo area was about 1,000 tons. Owing to the scarcity of labour and to the failure this year of the early rains, the Company doubts whether the figures for 1925 will be as good. All the coffee exported from this region reaches the coast by the Loanda railway. The greater part of the coffee coming down this line, however, is from the Encoje country farther north. For this region it has not been possible to obtain estimates, most of the coffee being grown by natives and small planters. The amount of coffee exported from Encoje and Cazengo at present, however, depends less on the size of the crops than on the capacity of the railway, which for several years has been quite inadequate for requirements, owing to the state of the track and the insufficiency of the rolling stock. Most of the 1923 crop—and some

of the 1922 crop even—is said to be still awaiting transport. The work of reconstructing the line is proceeding very slowly, but its effect and that of the additional rolling stock purchased last year is now beginning to be felt and there has been a considerable improvement in the last couple of months.

The quantity of coffee exported from Angola in 1923 was 6,031 tons, as compared with the record export of 10,304 tons in the previous year. Figures for the whole of 1924 are not yet available, but during the first six months the total export was 3,053 tons, while in the second half of the year some 2,400 tons were brought down the Loanda line. In the past the coffee export from Loanda has generally been from 50 to 60 per cent. of the total for the province and on this basis the total export for the year would work out as between 7,000 and 8,000 tons.

For the coming year it is difficult to form an estimate; so much depends on the working of the Loanda railway. As already stated, there has been a distinct improvement in this respect of late, as the following figures relating to the quantities of coffee brought down the line since September will show:—

September	...	...	...	...	266 tons.
October	...	...	...	...	288 „
November	...	...	...	...	310 „
December	...	...	...	...	349 „
January—1st three weeks	...	...	...	...	405 „

On January 22nd there were 3,175 tons of coffee lying at different stations along the line waiting to be loaded. The railway officials consider that this can be disposed of in a few months, but it is presumed that there is a good deal of coffee yet to be brought to the railway from the plantations.

If the railway can bring down an average of from 500 to 600 tons a month throughout the year, which it ought apparently to do without difficulty, this would give an export from Loanda for the year of from 6,000 to 7,000 tons. The export from the Amboim region, as already stated, is estimated at 3,000 tons and a further 1,000 tons or so should be included in respect of export from Ambriz and other ports in the north. These figures would give a total for the year in the neighbourhood of the record export of 1922. As indicated, however, the basis on which this estimate is made is very uncertain.

CEYLON TEA EXPORTS TO THE UNITED KINGDOM.

According to the Trade Report of the Ceylon Chamber of Commerce, exports of black and green tea in 1924 show the very considerable increase of 20,178,085 lbs., as compared with the previous year—the respective totals for the two periods being 203,680,013 lbs. and 183,501,928 lbs. Exports to the United Kingdom amounted to 131,672,209 lbs., an increase of over 10 million lbs. when compared with those of 1923. Other noticeable increases are Australia (4½ million lbs.) and the United States (1 million lbs.). Exports to Europe and to destinations in Asia other than India amount to approximately a million lbs. and 3½ million lbs. respectively. Exports to Egypt, which in 1923 showed an increase of 2½ million lbs. over 1922, register a decrease of 500,000 lbs., while shipments to France, New Zealand and India have also declined by 250,000 lbs., 750,000 lbs. and 250,000 lbs. respectively.

GOVERNMENT CINCHONA DEPARTMENT.

Mr. A. Wilson, Deputy Director of Agriculture (Cinchona) in his Administration Report of the Government Cinchona Department for 1923-24, says :—

In recent years emphasis has been laid on the necessity of increasing the supplies of Indian grown cinchona bark for the quantity on the Madras Government Plantations is strictly limited and there is a little prospect of the Malaria problem being resolutely tackled until large quantities of cheap quinine are at hand. Unlike many planting products it is well nigh hopeless to expect the cinchona tree to yield a remunerative return save on very high grade land and while criticism is often levied against the policy of growing the State requirements of bark on State plantations it is forgotten that few planters in these days care to risk their capital in cultivating such an exacting plant as cinchona when tea, coffee and similar plants can be grown with certain promise of return. Now cheap quinine—which is of paramount necessity in India—implies cheap bark from which to extract the alkaloid and cheap bark can only be obtained by cultivating large and extensive areas. To those who are interested in the problem of checking India's greatest scourge—Malaria—it must come of interest to learn that the question of opening large plantations of cinchona in the Anamalai Hills received the active support of a special committee at Delhi. The area was visited by His Excellency Lord Willindon in December 1923 and in the following February, Sir Arthur Knapp, the Member of Council in

charge of Cinchona, made detailed inspection of the ground, when opportunity was taken to explain the method of inaugurating the proposed plantation. The acreage of the land amounts to 22,000 acres which when planted up will yield a large quantity of quinine for Malaria propaganda, and in the next report it is hoped that a record of the actual commencement of planting will find a place.

During the year only about $1\frac{1}{2}$ lakhs of rupees of bark was on offer from private plantations and as most of this came from areas uprooted for the purpose of growing tea, the opening of the new plantations referred to above cannot any longer be delayed.

In South India there is only one private plantation, namely, Oosimalai, which is solely devoted to Cinchona growing but no considerable stock has yet been harvested. The area is planted with high grade seed and the bark which has so far been harvested is of very encouraging quality. As it has been represented that Government deliberately discouraged the growing of Cinchona bark, it is as well to state that only in recent years has bark been imported from Java when the supplies from private estates and the relatively small area of the Government plantation have been insufficient for the Quinine Factory. During the past 30 years bark to the value of 34 lakhs has been purchased from private planters in South India, and for 20 years at least payment has been made at the rate prevailing in the London market with a bonus for quality. The commanding position which Java holds in the production of Cinchona bark is due to the suitability of the soil, rainfall, and perhaps more particularly to the fact that that Island holds large tracts of land at that elevation on which Cinchona ledgeriana of high grade can be grown with marked success. In South India however other than Anamalais there is no easily accessible land known to the writer which holds out any promise of success which will challenge the results of the Dutch.

Noteworthy in the year is the success which the standardized preparation of Cinchona febrifuge—to which the name "Malarene" has been given—has obtained. Trials were made in various hospitals in the Presidency under the control of the Surgeon-General and the report of that officer indicates that for certain forms of Malaria, this drug is most efficacious. In some districts so surprisingly good have the results been that "Malarene" has all but ousted quinine from pride of place. Efforts are being directed to augment the production of "Malarene" which is fortunately obtainable from Cinchona bark more easily grown than the quinine yielding species—ledgeriana.

Points of interest in the years' work.

(a) *Cinchona Plantations*.—The rain fall on the Government plantations was as follows:—

Dodabetta 42'36 inches, Naduvattam 120'04 inches, and Hooker 108.22. Between Dodabetta and Naduvattam there is perhaps not more than 16 miles in a straight line but while the former recorded a rainfall over 12 inches below the average, the precipitation at Naduvattam was the highest for 14 years. Up to October the rainfall was 117 inches but in the succeeding six months only some 3 inches fell. This period of drought makes it necessary to grow cinchona under shade which is reduced by means of the pruning saw as the cinchona attains maturity. Grevillia is the principal tree used for shade but *Alnus Nepalensis* is being experimented with for it grows excellently at Naduvattam. As far as funds are available, deep forking was done and on the areas of old grass land over 30,000 bushel baskets of cattle manure were spread. Over 1,000 bags of ash from the factory furnaces were applied to block 1900 while on a portion of block 1918 where the trees are not too robust basic slag was lightly forked in. It is proposed to continue experiments in manuring. The amount harvested from the plantations during the year was as follows:—

Dodabatta 39,468 lb. and Naduvattam 218,239 lbs. the produce of over 86 acres, leaving an area under a full compliment of cinchona of 1,397 acres. As a check against the recorded number of acres, a tree count will be made and if considered necessary the entire area will be surveyed. The table below gives the figures showing the area of the plantations as at the beginning and the end of the year

Plantation.	Division.	Acreage on 1st April 1923.	Uprooted in 1923-24.	Acreage on 31st March 1924
Dodabetta	{ Dodabetta	229.0	13.0	216.0
	{ Kukal	17.6	0.6	17.0
Naduvattam	{ Naduvattam	409.67	22.51	387.16
	{ Hooker	827.25	50.2	777.05
Total		1,483.52	86.3	1,397.2

Quinine Factory. On account of short supplies of bark only four digesters out of six were working and the products were quinine sulphate 22,496 lb., quinine bisulphate 6,905 lb., quinine hydrochloride 220 lb., quinine bi-hydrochloride 240 lb., cinchona Febrifuge (Malaria) 17,432 lb. making in all a total of 47,293 lb. It was a new departure to make quinine bi-sulphate on a large scale and the salt produced was of excellent quality. The quality of the bark used was of an average of 3.39 per cent quinine sulphate against 3.61 per cent in the past year and this low figure makes the production of a pure white salt a matter of great difficulty. Necessary replacements such as new enamelled boiling pans were erected in position and steps were

taken to renew other factory equipment which has deteriorated. Towards the end of the year a fire occurred in the grinding room and this accounted for a loss of Rs 2,605. Recommendations have been made which when carried into effect will assist in making the factory more fire proof than it can be under present conditions. For the British Empire Exhibition the Manufacturing Chemist prepared an interesting series of quinine products.

Financial results. The profit for the year's working was Rs. 2,52,519 which is very satisfactory as it represents a higher percentage on the turnover than last year even though the profit of that year was Rs. 3,55,486. The fall in profit is due mainly to the fall in price in the market rate and also to a smaller quantity of quinine sulphate sold.

Government in a G. O. No. 366. Development dated 10th march 1925, commenting on the above report, remark that the progressive diminution of the supply of bark from private plantations has created a situation which necessitates the increase of the area under Government plantation in order to obviate the danger of undue dependence on imported bark, the price of which may, in the absence of an adequate home-grown reserve, be raised to a prohibitive level. The Government have therefore decided to proceed with a scheme which has been long under consideration for the opening of a new cinchona plantation in a tract of land in the Anamalais which, the Government are advised, is in every respect suitable. The area available comprises some 20,000 acres, of which it is proposed to bring under cultivation 2,300 acres within a period of ten years. Arrangements have been made for the preliminary clearance of jungle to be taken in hand at once and it is hoped to begin plantation during the course of the current year.

The noteworthy points of the year under review were the new departure in the manufacture of quinine bisulphate on a large scale and the success of the cinchona febrifuge, now named 'Malarene,' which has been proved to be efficacious for certain forms of malaria and which is obtainable from a bark more easily grown than other species.

On the financial side, the profits of the year were Rs. 2,52,519 against Rs. 3,55,486 in 1922-23. This decrease is due partly to a curtailment of sales but mainly to a reduction in the price of quinine, a cheap supply of which is of more importance than any other consideration. The production and manufacturing side of the department will shortly be placed on a commercial basis. Proposals are under the consideration of the Government for a reorganization of the present system of sale.

WEST COAST PLANTERS' ASSOCIATION.

Minutes of the Annual General Meeting held at the Malabar Club, Calicut, on 18th April 1925 at 3 p m.

Present. Mr. T. W. H. Fitchett (Chairman) and Messrs. H. Walmesley, H. R. Carson Parker, G. M. Brameld, F. H. Moulton, C. E. M. Browne, C. Elphinstone (Messrs. Parry & Co.,) R. Park (Messrs. Harrisons & Crosfield Ltd.,) and R. Lescher (Honorary Secretary). Visitors. Messrs. O. E. Windle and Olivier.

As Mr. Fitchett was not present at commencement of Meeting, Mr. Walmesley was voted to the chair.

Minutes of the last meeting were read and confirmed.

The Honorary Secretary's report and remarks on the Budget as attached were read and confirmed by the meeting and it was agreed the W. C. P. A. subscription should be 1 anna per acre for the coming year. The honorary Secretary was accorded a vote of thanks.

At this stage Mr. Fitchett took the chair.

The Annual Accounts as per attached memo were laid on the table, duly audited. On the motion of the chair these were unanimously passed.

Mr. Carson Parker brought up the matter of number of delegates to meetings and expenses. This was postponed until the next meeting.

Roads. The meeting desired to thank the Collector of Malabar for his reply to the representations made by the Association at the last meeting and to say that those concerned would be pleased to do whatever possible to help in road supervision and hoped particulars will be sent to the members concerned, Messrs. Fitchett and Lescher.

It was proposed by Mr. F. H. Moulton and seconded by Mr. C. E. M. Browne and passed:—

"That this Association draws the attention of the Collector of Malabar to the bridge at 13/8 on Mookam Nirlakamukkam road, which was destroyed during the Rebellion and temporarily repaired and which is now rapidly falling to pieces and in a dangerous condition."

It was further proposed by Mr. T. W. H. Fitchett and seconded by Mr. R. Lescher and passed:—

"That, where ferries have replaced bridges, sums obtained by auction sale of said ferries, should be earmarked for and devoted to rebuilding of the bridges the ferries temporarily replaced."

A copy of this resolution to be sent to the Collector of Malabar and the President of the Malabar District Board.

Correspondence. Letter re the Overseas club was read and noted.

Under Labour matters a discussion took place and the meeting decided that in view of the indiscriminate recruiting on behalf of other Districts now taking place in the immediate vicinity of Estates belonging to this Association, Members are advised to define their areas to the Honorary Secretary before the next meeting, with a view to having these registered by the Labour Department and recruiting prohibited. The Director of the Labour Department to be invited to attend the next meeting.

District Board. After a discussion the meeting was of opinion that the Association requires a representative on the District Board and deputed Mr. Fitchett to interview the Collector of Malabar on this and other matters, concerning the Association and its needs in the District.

Rubber Growers' Association. It was proposed by Mr Carson Parker and seconded by Mr. C. E. M. Browne that the Chairman and or Secretary, R. G. A., S. I. Branch be asked in future to give longer notice of Meetings, so that West Coast and other meetings can be suitably arranged to coincide. This was carried unanimously.

District Rates of Pay. Were discussed.

Rubber Thefts. Mr. O. E. Windle, D. S. Police addressed the Meeting with regard to stolen rubber and certain members gave their opinions. Mr. Windle was heartily thanked for the trouble he had taken in this matter and for attending the meeting.

Election of Office Bearers. The following were elected:-

Chairman—Mr. H. Walmesley.

Honorary Secretary—Mr. C. E. M. Browne.

Committee—Messrs. Lescher, Fitchett and Carson Parker.

General Committee Members—Messrs Fitchett & Carson Parker.

Auditor—Messrs Peirce Leslie to be asked to kindly officiate again.

Date and Place of next Meeting. This was fixed for Cochin on 11th July.

A special vote of thanks was given to Messrs. Peirce, Leslie & Co., Ltd., for kindly auditing the accounts so thoroughly.

A vote of thanks to the chair and to the Malabar Club for use of the room terminated the meeting.

H. WALMESLEY,
Chairman.

C. E. M. BROWNE,
Hony. Secretary.

U.P.A.S.I. STATISTICS SHIPMENT OF SOUTH INDIAN PRODUCE during MARCH, 1925.

TEA.	From.	To other ports		Ceylon.	United Kingdom.	Europe.	Asia.	Africa.	America.	Australia.
		in India.								
	Madras	...	738	...	81484	160	...	36	480	...
	Calicut	...	18013	36004	971362	...	...	1200	7150	...
	Cochin	...	19357	39785	613788	...	...	400	...	...
	Tellicherry	...	1380	...	60214	...	...	...	...	...
	Tuticorin	...	...	210465	798573	...	...	1200	...	...
	Alleppey	...	...	13819	...	...	...	...	...	...
	Totals...	39488	300073	2525421	160	1236	1600	7630	...	...
	Previously...	928642	3517128	33631558	67561	9581	6228	122315	...	60
Total lbs. since										
1-4-24 41158681...										
COFFEE										
	Madras	...	566	...	36156979	67721	10817	7828	129945	60
	Calicut	...	...	...	704	...	...	...	...	...
	Mangalore	...	1522	...	7987	1211	...	...	200	1482
	Tellicherry	...	...	...	10910	12885	5173	...	302	1413
	Bombay	...	...	...	8415	8615	...	...	...	...
	Totals...	2088	4	28016	23852	6234	984	...	...	...
	Previously...	4891	...	46086	27159	7060	...	...	503	2895
Total cwt. since										
1-1-25 151173 ...										
RUBBER										
	Calicut	...	6979	4	74102	51011	13294	...	503	5280
	Cochin	...	...	97801	153042	...	...	...	...	...
	Mangalore	...	...	60703	127376	...	...	...	80355	...
	Tellicherry	...	...	63917	...	...	...	...	...	...
	Tuticorin	...	...	...	9922	...	...	...	...	...
	Alleppey	...	...	2203	8190	...	...	...	...	...
	Totals...	...	...	102854	...	...	...	...	13450	...
	Previously...	1221	327478	298530	...	...	...	...	93805	...
	...	1221	1102632	1278635	56642	268	2000	...	558976	...
Total lbs. since										
1-1-25 3720187...										
	...	1221	1430110	1577165	56642	268	2000	...	652781	...

The Planters' Chronicle.

Recognised as the Official Organ of the U. P. A. S. L., Incorporated
Secretary's Registered Telegraphic Address "UPASI," MADRAS.

Mr. EDWIN VINCENT.—Managing Editor, Coimbatore,

Telegraphic Address:—"CHRONICLE," Coimbatore.

VOL. XX No. 19.]

MAY 9TH 1925.

[PRICE AS. 8.

CONTENTS.

	PAGE.		PAGE.
Tea Notes	... 285	Wynaad Planters' Association	... 297
Central Travancore Planters' Association	... 288	Letters to the Editor	... 300
Rubber Growers' Association.	293		

PRICE OF "A" COFFEE.

BY CABLE LONDON, 8th May, 1925.

150s./—per cwt. Market Flat .

TEA NOTES.

The Indian Tea Association quarterly Journal Part IV 1924 just issued is of especial interest to all Southern Indian Tea Planters containing as it does, an account of a visit to the Ceylon Tea Districts by (presumably) a member of the Tocklai staff.

We read that Tea in Ceylon was first planted in the sixties and in 1875 about 1000 acres were put out. By 1895 this had increased to 3,05,000 acres and by 1920 to 4,00,000 acres as compared with 7,07,700 acres at present under Tea in India.

In Ceylon as we know most of the Tea is situated above 3,000 feet, less than 20 per cent being in the low country, a state of affairs very different from that in N. E. India where practically all the Tea is at sea level. The average all round yield per acre in Ceylon works out at 434 lbs., per acre compared with N. E. Indias' 542 lbs., per acre.

Methods of plucking, pruning and manufacture vary greatly. This readers of the Planters' Chronicle knew before in a general way but it is interesting to learn exactly how they vary.

In place of the annual whole Estate prune of N. E. India pruning in Ceylon is done at longer intervals varying from about every 18 months in the low country, 24 to 36 months in the medium country, to 36-48 months at the highest elevation, the most favourable period for pruning being from mid June to mid September.

As regards plucking, we are told that in Assam it is not usual to pluck bushes at a lower height than 27 inches, at least 9 inches growth being left on medium pruned tea and on light pruned Tea 6 inches but that, after two or three months from tipping, fish-leaf plucking is the rule. In Ceylon, however, plucking starts at about 12 inches from the ground, a leaf above the fish being left each time resulting in the bush being about 3-4 feet high when pruning time comes round again. "Ceylon Plucking" says the writer, "is much finer than in India" (*South India* follows Ceylon, be it noted.) and a seven day round is always aimed at.

The manuring of Tea is a much older practice in Ceylon than in Assam, the reason being that Tea was first put out on old Coffee land which was partially exhausted. Few carefully carried out manuring experiments have been carried out in Ceylon, most manure mixtures being devised by visiting agents who work chiefly on their own experience, the result is that there is a tendency to manure in groups of Estates rather than on types of soil. Nevertheless the results are good and here again it may be that an ounce of experience is worth a ton of theory.

Soil Erosion.

"A visitor from the Assam Tea Districts is struck by the freedom from weeds of Ceylon Tea Estates, the result is that soil erosion in Ceylon presents a serious problem and on this account manuring must be heavy to make up for the plant food lost by wash"

Many South Indian Planters started their planting career in Ceylon and know how true this statement is; quite an ordinary manuring programme for Ceylon Tea would be as follows :—

At Pruning time.	350—450 lbs per acre.
8 months later	750 " " "
Second year from pruning	500—750 " " "

But there is no mosquito blight in Ceylon, even in the low country. May not clean weeding coupled with regular cultivation be the reason?

Manufacture.

Withering. The normal Ceylon wither, we read, is a 55 per cent one, the leaf then containing about 54 per cent moisture,

In Assam leaf containing 60—65 per cent moisture is considered well withered.

Rolling. Many Ceylon Estates roll as many as eight times and never less than three. Five rolls may be taken as the average. A common type of roll is as follows :—

30	minutes	with	no	pressure,
30	"	"	Slight	"
30	"	"	Half	"
30	"	"	Full	"

as compared with (apparently) only two rolls in Assam, but this may be partly explained by the speed of rolling, Assam rollers generally working at 70 R. P. M. against Ceylons' 45 R. P. M.

Another Ceylon type of roll is as follows :—

30	minutes	with	no	pressure
30	"	"	"	"
30	"	"	Half	"
20	"	"	Fairly hard	pressure
20	"	"	Pressure as hard as possible and	
			3 minutes break at half time.	
20	"	"	"	"
	"	"	"	"
	"	"	"	"
	"	"	"	"

For the low country three 40 minutes rolls are recommended.

In Fermentation methods great differences are found, those generally favoured in Ceylon being similar to the South Indian process; and in Firing, we are told that the principal difference is that no "Double Firing" is done in Ceylon, the Assam practice of a first "12-14 annas" fire followed by a second and final fire being due to the lighter Assam wither with its extra 11 per cent moisture.

The article concludes most interestingly as follows :—"It will be many years before the chemical and biological changes going on during tea manufacture have been elucidated and in the meantime the tea taster is the actual analyst who decides the value of the tea. Many tea tasters have studied the problem in tea factories and, by tasting, have greatly improved manufacture. Although scientific tea manufacture will finally be worked out in the laboratory, in the meantime the best results and the quickest advancement will be made by the chemist and the taster working together in the Tea Factory".

Most South Indian Planters who are members of U. P. A. S. I. are taking in all the I. T. A. publications. Those who don't will no doubt "order their copy now."

CENTRAL TRAVANCORE PLANTERS' ASSOCIATION. (INCORPORATED)

Proceedings of Annual Meeting held on Saturday 18th April
1925 at 10 A. M. at Vandiperiyar Club.

Present: Messrs. E. C. Sylvester (Chairman), J. S. Wilkie, W. F. Inman, J. F. Fraser, R. J. McMullin, W. B. Glenie, H. Gibbon, J. H. Cantlay, B. P. Tailyour, T. A. Kinmond, G. P. Farley, G. S. Napier Ford, T.H. Cameron (visitor) & W.A.J. Milner (Honorary Seceretary.)

1. The Minutes of the last General Meeting were taken as read and confirmed. The minutes of Committee Meeting were read and confirmed.

2. *Chairman's Address.*

Gentlemen,

The year just concluded has been one of great prosperity to the tea industry, but there are signs that this is now on the decline to some extent, and it behoves us therefore to take the necessary precautions to prevent a repetition of the slump which occurred in 1920. for, apart from the financial loss, it would be a great pity to forfeit the good name which Southern India teas have gained on the London market during the last few years.

Labour during the year under review has been in most cases very plentiful, thus accounting to a considerable extent for the satisfactory yields obtained on most estates, and we shall now have an opportunity of learning what the re-organised Labour Department is going to do, and how it is going to help us in the future. We must give it a fair trial and the co-operation of all members is necessary if we are to obtain the best results.

During the year the District suffered considerably from the abnormal monsoon, communications being destroyed, and many acres of tea washed away. We are under a debt of gratitude to His Highness' Government for the promptitude with which the various problems were dealt with, and also the P. W. D. of British India for the rapid repairs to the Kumili Ghaut.

Our Secretary's Report always gives you such full information on all points that I will not detain you further, but express my thanks for your hearty co-operation throughout the year, and in particular to our Secretary and the members of the Committee for the unfailing assistance they have always rendered.

I now place my resignation in your hands."

3. *Honorary Secretary's Annual Report.*

" Mr. Chairman & Gentlemen,

During the year under review three General Meetings and one Committee Meeting were held, The average attendance at meetings was 15 or 40%.

Membership. 26 estates were on the books with a planted acreage of 14,892.24 in addition to which there were two firm members and 6 Honorary Members. 2 additional estates have been elected members for the year 1925-26 bringing our Association acreage to 15,723.24. Another estate of 172 acres has just applied for membership.

Crop. This totalled 8,579,696 lbs from 14,344 acres mature tea (Association Estates only), 3180 acres mature tea from estates outside the Association gave 1,666,302 lbs, making a grand total of 10,245,998 lbs from 17524 acres for the whole district or an average all-round yield of 585 lbs per acre. This was solely the result of a favourable season, the prices obtained for our teas being evidence of the fact that quantity has not been sacrificed to quality. Present indications all point to a somewhat lower range of prices for the current season's teas, but this is probably all for the best in the end, as consumption should be stimulated. The statistical position of our product, however, is still good. According to Messrs. Denton, in the Times of Ceylon, the world's production of black tea in 1924 was 715 million pounds against 687½ millions in 1923 or an increase of only 27½ million pounds against which you have an increase in world consumption of 30 million lbs.

Messrs. Denton expect that the market will recover by May or June by which time the present rather heavy stocks, apparently the result of earlier shipments (55 million lbs., more tea were imported into U. K. to 31st December in 1924 than in 1923) will have been reduced.

It might not be out of place in this connection to mention the question of amending the Pure Food Act in the U. K. so that the sale of very stinky teas will be impossible and it is to be hoped that the U. P. A. S. I. can take up the matter with the S. I. A. London. I have a sample of the sort of tea I mean here which most decidedly speaks for itself.

Accounts. These are placed on the table and show an expenditure of Rs. 3398-11-1 for the year of which Rs. 800/- is not likely to occur again. The year closes with a credit balance of Rs. 853-5-11 and the same cess as last year- 3½ as. per ac- will amply meet all 1925-26 expenditure.

Roads. The damage done during the last S. W. monsoon has not, as far as our ghat roads go, yet been entirely made good but a great deal of solid work has been put in on both ghats and we hope it will not be long before they are in perfect order again.

The local district roads have never been in better condition and the extra expenditure incurred in improving them has been amply justified. Light lorries can now run to most of our estates. When the Ropeway is working, which we all hope will be soon, our transport troubles will have completely vanished.

P. B. Fund & L. A N. I. To the former Fund 24 members including the Association and two estates subscribed Rs. 320 as compared with 26 members & Rs. 325 previously. Rs. 150 was collected for the latter Fund during the year and sent in.

Labour. This has again been plentiful throughout the district.

S. P. M. R. A great deal of work has been done throughout the year, the Annual Camp was well attended, and our thanks are due to the C. Os, N. C. Os & S. S. I. for all the trouble they have taken.

Labour Rules. The C. T. P. A. Rules as revised this year have, I believe, worked quite satisfactorily and it is a matter for satisfaction that Rules for Inter-District bolting coolies have been finally agreed upon between the K. D. P. A., S. T. P. A. and ourselves. These Rules have just been printed and circulated to all members.

This, gentlemen, concludes my report and it only remains for me to place my resignation in your hands.

I cannot close without thanking the Chairman and Committee for all their assistance and advice and all concerned for the promptness with which they have answered circulars, paid cesses and filled in the numerous forms which I have sent out."

4. *Accounts.* Proposed from the Chair :—

"That the accounts be passed and that the cess for 1925-26 be 3½ as per acre." Carried unanimously.

(BALANCE SHEET AS AT 31ST MARCH 1925.)

<i>Revenue Account.</i>		<i>Cash.</i>	
Balance on 31-3-24	1083-6-6	with the National	
1924-25 Expend. 3598-11-1		Bank of India Ltd.,	
Less „ Income 3368-10-6		Madras.	
Expenditure over Income.	230-0-7	853-5-11	853-5-11
		Rs. 853-5-11	Rs. 853-5-11

These accounts were duly audited by Mr. V. Vadivel Pillai).

5. *Correspondence.* Read letter from the Superintendent, Mlamalla Estate re membership of Association and the Honorary Secretary's reply. Decided to wait for the information asked for.

Stalky Tea. Read letter from H. C. Westaway with sample of stalk now being sold as tea in London and resolved that the Honorary Secretary should write the U. P. A. S. I., and ask if the matter can be taken up with S. I. A. London.

Sale of Toddy by Peermade T. B. butler to coolies. Read letter from Superintendent, Stagbrook estate and the Honorary Secretary was requested to put the question before the Excise Commissioner.

6. *Sri Mulam Delegates Report.* This was read and hearty vote of thanks accorded the delegate, his expenses being sanctioned

7 *Report of Delegates to Ootacamund U. P. A. S. I. and Labour Control Committee on 25th and 26th March.*

Mr. Milner gave the meeting a brief resume of the business done at the Extraordinary General meeting and General Committee Meeting of U. P. A. S. I. and Messrs. Cantlay and Tailyour gave very interesting accounts of the Proceedings of the Srivilliputtur and Coimbatore Control Committee meetings.

With reference to a matter raised at the latter meeting the following resolution proposed by Mr. Tailyour and seconded by Mr. Sylvester was carried.

" That any private agent working in any Labour Division should be under the control of the U. P. A. S. I. Superintendent in whose division he is working."

It was proposed from the Chair that the budgets and proceedings of the various Control Committees should be printed and circulated to all subscribers through the Control Committee members.

This was carried unanimously.

Mr. Wilkie moved a hearty vote of thanks to the delegates and asked the meeting to pass their expenses after ascertaining what share of same would be met by the Labour Department.

This was seconded by Mr. Farley and carried unanimously.

8. *Election of Control Committees.*

It was proposed from the Chair and carried unanimously that the following Committees be elected:—

<i>Sriwilliputtur</i>	<i>Active</i>	<i>in-waiting.</i>
	Messrs. J. H. Cantlay	— H. Clarke

(Messrs. Gerrard & Farley were elected as substitutes in case neither the Active nor the member-in-waiting could attend meetings)

<i>Palamcottah</i>	Messrs. W. A. J. Milner	— T. A. Kinmond
--------------------	-------------------------	-----------------

<i>(Reserve members</i>	„ C. J. Madden	— A. V. Mawer)
-------------------------	----------------	----------------

<i>Coimbatore</i>	Messrs. B. P. Tailyour	— W. Hatherell
-------------------	------------------------	----------------

<i>(Reserve members</i>	„ J. Wedderspoon	— H. C. Westaway)
-------------------------	------------------	-------------------

Mr. Sylvester moved that our Control Committee members should meet as soon after the next Control Committee meetings had been held as possible, the P. A. Chairman to preside. Mr. Tailyour seconded this resolution, which was carried.

9. *District Telephones* Mr. Sylvester informed the meeting of what had so far been done regarding this question but stated that he had to await further information before putting a definite scheme before the Association. It was resolved that the District Telephone Committee should consist of Messrs. Madden & Gerrard for the West End & of Messrs Cantlay & Inman for the East end of the district.

10. *Election of Office Bearers*

Chairman :	...	Mr. E. C. Sylvester
------------	-----	---------------------

Hon: Secretary:	...	„ W. A. J. Milner
-----------------	-----	-------------------

Committee:	...	„ W. F. Inman
	...	„ J. H. Cantlay
	...	„ H. Clarke
	...	„ R. J. McMullin
	...	„ H. C. Westaway
	...	„ E. F. H. Gerrard

U. P. A S I. Gen. Committee: Messrs. E. C. Sylvester and W. A. J. Milner.

Auditor: Mr. V. Vadivel Pillai.

Districts Sports Committee: The Honorary Secretaries of the two Clubs and Messrs. G. P. Farley (Secretary), Fraser and Bissett

U P. A. S. I. Sports Representative: Mr G. P. Farley.

Standing Labour Committee: Messrs. J. H. Cantlay, E. F. H. Gerrard, W. A. J. Milner, B. P. Tailyour, W. F. Inman and R. J. McMullin.

Date of next meeting: Saturday July 4th.

The Meeting closed with a vote of thanks to Chair and to the Honorary Secretary for his work during the year.

E. C. SYLVESTER,
Chairman,

W. A. J. MILNER,
Honorary Secretary.

RUBBER GROWERS' ASSOCIATION

Southern India Branch.

Proceedings of the Annual General Meeting of the South Indian Branch of the Rubber Growers' Association held at the Cochin Club, Cochin on Monday the 27th April 1925.

PRESENT.

F. G. Millar	...	Chairman.
C. E. M. Browne	...	Kerala Calicut Estates Co., Ltd.
T. W. H. Fitchett	...	do
R. Lescher	..	Eddivana R & T Co., Ltd. & Pullengode Rubber Estate Ltd.
E. LeFevre	...	Messrs Aspinwall & Company
H. D. Patch	...	„ Madura Company Ltd.
H. J. Walmesly	...	Mooply Valley Rubber Co. Ltd
H. Waddington	...	Secretary.

The Chairman informed the meeting that he had received a letter from Mr. Ashplant regretting that owing to indisposition he was unable to be present.

The Secretary read the Notice calling the meeting and the Agenda.

Mr. Walmesley asked that in future longer Notice of the date fixed for meeting be given, in order that arrangements might be made for the holding of other Association meetings at the same time, he thought the poor attendance at the present meeting was probably owing to many men being unable to get away again so shortly after the meeting of the West Coast Planters' Association.

The Proceedings of the last Meeting held on the 3rd May 1925 were read. Proposed by *Mr. Fitchett* and seconded by *Mr. Lescher* that they be confirmed.

Carried.

Regulation of Rubber Exports.

The Secretary informed the meeting that although support from Companies working with sterling capital in Southern India was practically unanimous promise of support regarding only 6,290 acres, working under Rupee capital, had so far been received.

A discussion ensued during which it was pointed out that in some cases young Rubber, although old enough, was not being brought into tapping in order to restrict output.

Proposed by *Mr. Walmesley* and seconded by *Mr. C. E. M. Browne*. That the meeting regrets the small support received from Rupee Companies to the Stevenson Scheme in view of the advantages they have derived from the sacrifice made by estates supporting the scheme.

Carried unanimously.

Constitution of the Branch.

Under instructions of the Chair the Secretary explained that the Resolution passed at the last Meeting was forwarded to London and at the same time referred to the Executive Committee of the U. P. A. S. I. The latter did not see its way to support the proposal as members were in favour of the proposition put forward by Messrs Richardson and Mackie; at the same time the Committee did not consider that the U. P. A. S. I. should put any pressure on Rubber Planters as it was a matter for them to decide and London was advised accordingly.

On receipt of the suggestions made by the R. G. A. London that the constitution should revert to that originally proposed in 1915, under which the U. P. A. S. I. should appoint an Advisory Sub-Committee to represent the R. G. A. and act as advisers in all matters affecting the interests of the rubber growing industry in S. India, they were circulated to all concerned and brought up for consideration at the Annual Meeting of the U. P. A. S. I. held last October in Bangalore. As no resolution was then proposed that the procedure suggested

should be adopted and no counter proposal was made the secretary was instructed to explain matters to the R. G. A., this was done. The Secretary read letter dated 20th November to the R. G. A. Under date 15th January last the R. G. A. wrote advising that the matter was being considered and that a cable had been sent Mr. Lucking asking if he could assist in coming to a practical arrangement. Unfortunately before a meeting could be fixed up Mr. Lucking had left the country. An alteration has just been made in the Articles of Association under which it will be possible, if wished, to give a seat on the Executive Committee of the U. P. A. S. I. to a special representative of the Rubber Growers Association.

In the discussion which followed the opinion was expressed that if the Executive Committee of the U. P. A. S. I. was to represent the R. G. A. it practically meant the washing out of the South Indian Branch, which if attendance at meetings was to be as poor as at the present meeting would not be of importance, but if only more interest could be worked up and more rubber planters persuaded to attend, the Branch should serve a very useful purpose, the speaker instanced the advantage it would be to all if at the present time planters could meet and discuss the difficult matter of satisfactory spraying methods. It was also questioned whether the Executive Committee of the U. P. A. S. I. having at meetings only one representative of the Rubber Industry, could be in a position to deal with Rubber questions. On the other hand the opinion was expressed that it would be a mistake to completely sever all connection with the U. P. A. S. I.

Proposed by Mr. Lescher and seconded by Mr. Fitchett,—

That the proposals made by the South Indian Committee of the Rubber Growers' Association and contained in letter dated 10th July 1924 from the South Indian Association in London to the United Planters' Association of Southern India be adopted.

Carried.

Mundakayam Mycologist Station.

The Secretary explained that an arrangement had been come to with Mr. Ashplant to renew his engagement for three and a half years after his return from six months leave which he is taking on the expiry of his contract with Government, next month. That Government had decided not to renew the engagement but left the U. P. A. S. I. to make its own arrangements with Mr. Ashplant. Under the arrangement arrived at with Mr. Ashplant his pay will be increased by Rs. 250 per mensem and the Association will continue to set aside an amount equal to 25 % of his salary each month as a bonus to be made to Mr. Ashplant on his leaving the services of the Association at any time after he has completed eight years service with the Association, inclusive of his present leave. Mr. Ashplant will be on

leave on full pay but this has already been accumulated by the 25 % which has been paid to Government and there will be a saving during this financial year of some Rs. 6,000 on this account, with that money the Secretary considered it possible to continue meeting the extra pay and allowances promised Mr Ashplant for a further two years, at the end of which time the matter will have to be reconsidered and the Mycologist cess increased or the expenditure on the station cut down.

In answers to questions the Secretary explained that the expenditure for the last two years had been some Rs. 300 more than the cess and contribution from the R. G. A. had realized, but in addition to their contribution of £ 200 per annum, the R. G. A. made a grant of Rs. 70 a month to the U. P. A. S. I. for Secretarial and office expenses and the small excess had so far been met from that. He thought that it would be a mistake to reduce the cess for the current year as it would have to be increased again next year to at least its present figure.

The Secretary was instructed to record that the saving of Rs 6,000 in the current year, due to Mr. Ashplant proceeding on leave, should be earmarked for expenditure on the Mycologist Station later.

Propaganda.

Read proceedings of the South Indian Committee of the R. G. A. suggesting that pending the re-organization of the Local Committee in South India the question of the interim grant of £250 voted from the Propaganda Funds for use in Southern India remain in abeyance.

Considerable discussion ensued on the matter of propaganda and it was proposed from the Chair,—

Resolved to address the R. G. A. Propaganda Committee with reference to a Propagandist visiting India.

Carried.

Office Bearers.

Proposed by the Chair,—

That the Office Bearers remain as at present until replies are received from London as to the re-constitution of the Branch

Carried.

A vote of thanks to the Cochin Club for use of the room and to the Chair terminated the proceedings.

H. WADDINGTON

Secretary.

WYNAAD PLANTERS ASSOCIATION.

Proceedings of the Annual General Meeting held at the Meppadi Club on Wednesday the 29th April 1925 at 2-30 p. m.

Present. Messrs. B. M. Behr (Chairman) T. P. Gauld, H. O. Davies, S. H. Powell, B. St. J. Boulton, J. A. Gwynne, M. W. Mackay, J. E. Bisset, W. A. Reynolds, I. Finlayson, B. Vincent J. Broadhurst.

Proceedings of the last meeting were passed with the alteration pointed out by Mr. Eyre in the Planters Chronicle,

The Hon. Secretary then read his report :—

"During the past year there have been five Ordinary General Meetings of the Association. The acreage subscribing to the Association is 10,465.55 acres, consisting of 9,756.55 acres Tea and 709 acres Coffee and Pepper.

Seasons & Crops. The South West monsoon was the worst on record for the last forty years, but the damage done to the cultivation in the district by the excessive rainfall was infinitesimal compared to other districts. Traffic with the Coast was only held up for about ten days thanks to the prompt action of Mr. Gwynne our then Hon. Secretary who at once got into communication with the Collector and the P. W. D. and explained the seriousness of the position urging them to immediate action and himself sending daily several hundred coolies to clear the Ghat road under the supervision of his assistant Mr. Boulton. I am sure a hearty vote of thanks is due to Mr. Gwynne and Mr. Boulton, from the whole district.

Notwithstanding the wretched conditions the season's output was almost a record.

The market conditions have been all in our favour, the prices ruling for Tea being the highest touched for many years. The close of our year marked a certain fall in prices but this would seem to be only temporary.

Labour. Labour continues to be plentiful and prospects for the ensuing year are bright.

The Anamallais scheme is being inaugurated from the 1st of April. This scheme has been well received and it remains to be seen if it turns out as successful as anticipated. The Labour Control Committees have made a good beginning and it is up to the Members of the Association to accord them every support.

Re-settlement Survey. As you know the Report on this Survey has been published for criticism. Representations were made to Government by the U. P. A. S. I. regarding the proposed inequitable increase in assessment, but nothing further has come forward to date to show Government's attitude in the matter.

U. P. A. S. I. It is with great pleasure that we have to record the honour given to this Association by the appointment of our late Hon. Secretary Mr. Gwynne to be Chairman of our mother Association. This honour everyone knows he has earned by his wholehearted and unselfish work for the good of others we wish him unqualified success.

Accounts. I now wish you to pass the accounts and Budget subject to audit which are on the table if they meet with your approval.

The Chairman then read his report as follows:

It is customary for the Chairman at the close of his term of office to make a few remarks but I will not keep you long.

I was unable to resign at our last Annual Meeting as the incorporation of our Association was not quite completed. I should have resigned in writing at the first Meeting after Incorporation but was under the impression that my term of office concluded at that Meeting and when on leave one doesn't worry much about these matters. You must forgive me.

It was gratifying on my return to find that the District has escaped comparatively lightly from the record rains of last July but it was sad to find that damage done last July to the Bridges and Culverts on the District Board Trunk Road between Chundale and Choladi was still unrepaired. It is so now. This road, the main road from Calicut to Ootacamund, now carries, owing to the breakdown of the Nadghani Ghat, the additional traffic of the Nilgiri—Wynaad District plus that of some of the Nilgiri Estates. It has consequently greatly deteriorated and will continue to do so unless better work and more money is put into it than it has had to date.

We have to thank the D. P. W. for the good work put into the roads under their charge.

While I was at home I saw a sample of the selfish and foolish policy of coarse plucking which has caused the production of tea to so rapidly overtake the consumption and slump the market.

It was Sumatra Tea and they said an exceptionally bad lot. It couldn't have been much worse; it was 40—50% stalk and the rest rubbish yet it found a market at 1/3, a price now paid for good sound B. P. Legislation against the marketing of such teas would be welcomed by all. The market shows signs of recovery and as this

District has, on the whole, been fortunate in its early rains the prospects are bright.

There are important problems before us in the coming year the chief of which is the abolition of the Penal Clauses of the Acts under which our labour is contracted. It is only by combination that we shall cope with any success with the unrest that is bound to ensue among our labourers. As far as I can see District and Inter-district Labour Rules carried out in the spirit as well as in the letter of the law will be our only hope.

The Accounts were passed.

Budget. The Hon. Secretary was instructed to write to Messrs. Peirce Leslie & Co Ltd., with reference to Sankaren Butler.

Proposed by Mr. Swayne and seconded by Mr. Eyre that Sankaren Butler's pension be continued.

Carried.

Proposed by Mr. Gauld and seconded by Mr. Bisset that the rent paid to the Meppadi Club be reduced to Rs. 50 per annum and that the balance Rs 350 be for W. P. A. delegates to U. P. A S. I. Meetings.

The Budget as corrected was then passed.

Sports Club. Mr. Gwynne said he hoped that everyone in the district who had not already joined would do so (applause). Proposed by Mr. Gauld and seconded by Mr. Gwynne that all Companies and Proprietors be approached to contribute towards the expenses of the Sports Club in assisting younger members of the Planting Community in their travelling expenses to representative games. This resolution to be submitted through the Secretary U. P. A. S. I.

Carried unanimously.

Labour Control Committees Mr. Eyre reported what had taken place at the control Committee Meeting in Ootacamund which he had attended as representative for Mangalore for the District and it was resolved that copies of the proposed Labour Co-operative Society in South Canara be circulated.

Mr. Gauld and Mr. Swayne also spoke on this subject.

A vote of thanks was passed to our Delegates for their work for the District.

Maternity Bill A letter from the collector was read and the Hon. Secretary's reply to it was regarded as suitable.

Other Competent Business. The Hon. Secretary read a letter from the Superintendent of Police, N. Malabar informing the Association that a black list of all coolies convicted in Meppadi for the last three years was on view to managers at the Police Station, Meppadi.

Election of office Bearers for Season 1925 - 1926.

The following were elected :—

Chairman Mr. B. M. Behr.

Hon. Secretary „ I. Finlayson

Mr Siromoney of Coimbatore was again elected Auditor.

Mr. Behr proposed a hearty vote of thanks to the retiring Hon. Secretary for his work which was greeted with applause.

With a hearty vote of thanks to the Chair the Meeting terminated.

B. M. BEHR.
Chairman.

J. H. B. SULLIVAN,
Hon. Secretary.

LETTERS TO THE EDITOR.

*(The Planters' Chronicle is not responsible for the opinions
of its correspondents)*

Dear Sir,

Coffee Shortages.

I notice that both your Kotagiri and Shevaroy's correspondents speak of serious losses of Coffee en route to the Curing Works. From my experience I should say that every bit of the shortage can be safely put down to theft. If a certified Imperial bushel is used on the Estate when despatching crop there is no reason why there should be any shortage, on the contrary in my case I nearly always find my Coffee arrives at the Curing Works *in excess* of the quantity despatched from my Estate. This year I despatched 4462 bushels, and have received receipts from my Curers for 4485 bushels, an excess of 23 bushels, which is (in proportion to the quantity despatched) about what I generally get. Should any shortage occur, as very occasionally has happened, the value of the deficiency is immediately deducted by the Curers from the balance cart-hire due to the Contractor. Our Coffee has to travel in Carts for 90 miles to the Curing Works in Coimbatore, and is transferred from one lot of carts to another en route. The Coffee is of course measured in the Contractor's presence on the Estate.

Yours faithfully,
RALPH C. MORRIS.

The Planters' Chronicle.

Recognised as the Official Organ of the U. P. H. S. I., Incorporated

Secretary's Registered Telegraphic Address "UPASI," MADRAS.

Mr. EDWIN VINCENT.—Managing Editor, Coimbatore,

Telegraphic Address:—"CHRONICLE," Coimbatore.

VOL. XX No. 20]

MAY 16TH 1925.

[PRICE AS. 8.

CONTENTS.

	PAGE.		PAGE.
The Santos Coffee Crop ...	301	Proposed Residential	
Notes from a Pioneer on Rubber		Planters' Club Whitehall...	307
Preparation from the Latex.	302	Cover Crops ...	310
Artificial Fertilizers ...	306		

PRICE OF "A" COFFEE.

BY CABLE LONDON, 15th May, 1925.

142s./—per cwt. Market Flat.

THE SANTOS COFFEE CROP.

We are indebted to a valued London correspondent for a cutting from the *Times* containing an account of the Ordinary General Meeting of the San Paulo (Brazilian) Railway Company, Limited. Speaking to the adoption of the report and accounts the Chairman, Lord Bessborough made some interesting remarks on the subject of coffee. The Railway obviously is largely dependent upon the coffee crop for its traffic from the interior to the port of Santos and this was estimated in April last year at 75,00,000 bags. The cereal crop is also a governing factor and reference is made to this crop having been affected by the severe drought. This period of drought is also mentioned by Lord Bessborough in connection with coffee, the Superintendent having reported, to quote the Chairman, "that the coffee crop for the year 1925-26 has been adversely affected by drought, and is estimated at 65,00,000 bags". The outlook for the coming year, however, is considered satisfactory, as there is a considerable portion of the 1924-25 crop retained in the interior and together with heavier cereal traffic than was carried in 1924, a steady coffee traffic may be expected.

NOTES FROM A PIONEER ON RUBBER PREPARATION FROM THE LATEX.*

BY SIR HENRY WICKHAM.

In venturing to give these few notes, which are directly derived from the long-drawn-out experience of an old pioneer, I derive some support from an observation made by Dr. Van Rossem that in his view as a chemist, they (chemists?) had been mistaken in having neglected to look more closely into the method of the antiseptic cure of what was known as "fine up-river Para rubber." Coming spontaneously from so eminent a chemist, this statement was in the nature of an agreeable surprise to me. May not it be that some others of that great profession will ultimately be led to inquire into *origins*?

This point has been already embodied in recommendations in my reports to the Government of India at the time of the original introduction of the india-rubber plant to their Eastern territories.

That commission entailed reports and counter-reports at the India Office from the forestry and other scientific advisory staffs in the East.

The attitude of the official chemists was, in effect, that we were to be congratulated on the introduction to our own Eastern territories of the stock plants for a potentially valuable new industry. But they were scientific advisers, and from experiments already instituted were unable to agree with the recommendations conveyed in the Commissioner's report as to beginning this new industry with a test of the process by which rubber was produced by the "Wild Indians" of South America, that known as the "fine Para," and recommended by him as being the recognised standard rubber. On the contrary, and from results of the experiments already instituted by them, chemical reaction was found to (or has been found to be, etc.) be induced in the latex, by which *caoutchouc*, the valuable ingredient contained in the liquid latex of this *Hevea* tree, might be secured in the form of a pure extract. The strength of this counter-advice prevailing was and is, scientifically no doubt, accurate and incontestible.

But as it seemed, and still appears to me, it conveys an astonishing lack of information on the part of the officially recognised scientists, in that they knew so little as to its origin in supposing it to have originated with "Wild Indians" of the Amazon jungles, rather than as the standard known as "Fine Up-River," which originated with those highly-cultivated people, the Inca of the Highlands of

* Read before the Institution of the Rubber Industry, 6th April, 1925.

Peru. Evidence from the tombs alone of this ancient people suffices to show that this antiseptic curing process for rubber originated with them. And that, judged by the evidence thereby conveyed, it must have long been in organized operation by them. This was but confirmed for me by long experience spent by myself as a ranger in the Equatorial forested regions of South America. During that extended period I came across evidences that this ancient Empire not being a maritime power, and inhabiting a cold, and in part a bleakly cold, plateau, had its colonies from which to draw raw material, situate in the vast forest jungles embraced within the hot valleys of the Amazon and Orinoco river systems.

In fact I came across glimpses of incised stonework, seen through deep water, in what is now evidently a geologically depressed district, an area, the headwaters betwixt the watershed of the Orinoco and Amazon Valleys.

These ancients, the Inca, were a wonderful people in that they clearly were in possession of processes and arts now lost. This is attested by their fibres and textile materials, their enduring dyes, drugs, metal and alloys, etc.

I should like to remark that, in my opinion, modern rubber and other manufacturers may yet, perchance, come to realise the value of the knowledge and skill which the people of this ancient civilisation possessed.

The pitiful part in the historic record of the Spanish conquest in the New World lies especially in that exemplified by Pizarro in Peru. For not only were great cities destroyed, and the whole of their inhabitants together within them, but their arts and crafts were also destroyed. These were all discarded and crushed under torture in the merciless fury of greed in order only to discover their mines of gold, silver and precious stones. This spirit of destruction, it may be remembered, was not confined to their more distant conquests, but as it has been truly written of Alvas in his European ravages under Philip the Second, "he found Bruges and Antwerp the then head and centre of art and trade, but in less than thirty years their destruction had been rendered complete."

As to the methods of the equally highly-cultivated Maya races further north in Mexico, dealing as they did with a very different class of rubber latex (that derived from the *Castilloa* tree,) there would not appear to be much evidence obtainable beyond its mention by the early navigators and discoverers as having been in use by the natives.

Incidentally, and as touching a subject which has exercised the mind of scientific botanists as to the natural place of latex in the life-

economy of certain plants and trees, I would suggest that its purpose is mainly as a defence against insect attacks. Notably so in the case of a "Hevea" rubber tree, seeing that its native habitat is infested by species of a large leaf-cutting ant (the Sauba ant), which, in many cases, often renders the trees defoliate until they are destroyed.

An antiquarian friend of mine has lately sent me an old miscellany called "The Bee," which was published in Edinburgh so far back as 23rd March, 1791, in which the writer of an article of that early date, thus expresses himself: "From simple detail of fact it is easy to see the uses to which the substance we obtain from the natives and call indian-rubber, might be applied in arts and in manufactures, innumerable uses, and such as can be affected by no other known substance. Yet so blind has mankind been hitherto to these advantages that no attempts have been made in any region where extensive manufactures could be established to cultivate this tree that produces it. . . ."

The author then proceeds with much precision to enumerate uses to which it could be put, observing that, in short, "the variety of uses in which the substance might be applied are too numerous to admit of being here so much as even pointed out; but that the savages of South America whom our 'philosophers' represent as deficient, may teach us the method. . . ." By reading between the lines as written by this old writer I think one may be convinced of his having been in possession of that finer kind of "up-river fine," which even in my time I can remember as being of a finer quality and cure than that now to be found coming into the market. As the whole of this old article appears to be so really interesting, both because of its early date and because of the vision displayed by its author, and since I understand that the secretary is engaged in forming a library for this Institution, I will hand it on to him.

Consequently for my part it has seemed a matter of surprise that a method of producing a material so enduring should for so long have been set aside as "empirical" and unsound in principle. Looking now, as far back as the sixties, I remember my endeavour to start at the source in handling this material derived directly from the latex from the tree, shaping practice as a matter circumstantially evidenced; and in doing so, finding that this complex material, as cured on this antiseptic principle of the ancients, could be and has been produced, in the plastic stage, at first hand from the latex, and also, if arrested at that stage, could be moulded or delivered direct in dry sheeted form.

Wherefore does not it seem to be at least illogical that there should be so much multiple handling and duplication of machinery

at this much later period? Personally I have long since been convinced that mechanical manipulation of the rubber latex was, and is, no question for the planter on the plantation, but that it is for the manufacturer to handle the latex directly in his factory. Moreover, it would seem that the coming event already casts its shadow before. The British *forte* lies, does not it, in initiative? I therefore take it that every manufacturer has, and retains, his individualistic methods, and that there is that which may even be called "factory" idiosyncrasy, all of which would seem likely to be better secured and served in dealing with this latex direct. Again, so much diversity in handling can hardly bring about a staple "standard". By the way, it may be here noted that to some of us, having practical experience in the handling of this complex substance rubber, it appears as if the chemist, as such, now obtains somewhat disproportionate control in the Rubber Industry, and that there are points of physics and mechanics which would appear to be now receiving less than their due consideration.

This is in contrast to some of the other staple industries older than that of rubber, wherein chemistry, physics and mechanics have arrived mutually at a stage of working conjointly and uncontentiously, and with proportionate effectiveness.

At the same time I would say that no one can have a larger admiration than I for the work of the scientific chemist in this industry, or a greater appreciation of his tenacity in "research," especially into the cause of things.

May not it, however, be admitted that effect may be attained, and even secured, by the practical observer, although he work by way of observation, through physical and applied mechanics?

May I also venture to think, or to hope, that in listening to these few rough notes of a pioneer, who in dealing with this complex substance has done so at its source in the latex from the tree, some slight advantage may accrue? I know much of all this may be classed as "empirical," though I would rather substitute the term "circumstantial evidence," and yet is it not circumstantial evidence which hangs a man, though theory and sentiment may have more influence in the case of the ladies? Admitting that scientific chemical research into cause discloses most important and remarkable results; yet, as touching the old question of cause and effect it is to be admitted also that the man of action, through his experience, does on occasion obtain and even secure effect. Finally, however, that may be, the establishment of this Institution, representing as it does all branches of the Rubber Industry, will continue to afford, as it has already afforded, openings, and it is to be hoped that something in the nature at least of a gap or gateway, has been formed in what had formerly presented (at any rate for the pioneer) the appearance of a hedge, quick set round this Industry.

ARTIFICIAL FERTILIZERS.

The ever-increasing demands on the part of a large number of European countries for artificial fertilizers should cause particular attention to be paid to an editorial on the possibilities of sulphur in this connection appearing in the current issue of "The Chemical Age". Although the whole matter must still be considered as in a more or less experimental stage, says our contemporary, there is a good deal of interest attached to the unobtrusive work which is being carried out in connection with the employment of sulphur as a fertilizer. The time has, of course, by no means arrived for the general application of sulphur in lieu of the more familiar fertilizers, but there would seem to be something in the suggestion that sulphur deficiency in certain cases may be responsible for indifferent results which are usually ascribed to other causes. Much of the present-day interest in the matter is to be found in America, where attention has been directed to the possibilities of sulphur by French experiments which were carried out some ten or fifteen years ago. In the main, the French studies were concerned with the fertilizing action, both direct and indirect, which sulphur exerts in the soil; but the American experience has been along some-what different lines, an attempt having been made to classify and record the increased production derived from the application of sulphur, while a good deal of work has centred round the control of soil diseases by means of the same material.

It must be admitted that the whole position as regards both fertilizing action and ultimate effect is decidedly indefinite, and it is, perhaps, scarcely possible to agree as yet with the assertion that in some soils sulphur may be a limiting factor, and that crop increases which have followed the application of superphosphates or sulphate of ammonia are probably due to the sulphur content rather than to the phosphoric acid or nitrogen of such materials. It is, moreover, particularly difficult to find any specific opinions as to the proper amount of sulphur to apply, although Dr. H. Clay Lint, of the Texas Gulf Sulphur Company, has recently quoted results which place the quantity between the rather wide limits of 275 and 450 lbs. per acre. He states, moreover, that the application should take place in the autumn, but it depends upon the characteristics of the soil as to whether it should be a surface treatment or a deep application. It is, however, as well to bear in mind the opinion of Mr. C. C. Fletcher, of the U. S. Bureau of Soils, who stated that an application of 40 lbs. per acre had been found satisfactory. Quite recently Prof. Marcad, of the Bordeaux Faculty of Sciences, published a thesis on the use of sulphur as a fertilizer in which he draws the following conclusion:—

(1) that sulphur placed in the soil transforms itself not only into sulphuric acid, but also into hydrogen sulphide in certain conditions

(2) this hydrogen sulphide contributes to the partial disinfection of the soil, facilitates the ammonification of organic compounds, and opens the way for active nitrification the following spring; and

(3) sulphur is not only a disinfectant, but is also a fertilizer.

PROPOSED RESIDENTIAL PLANTERS' CLUB, WHITEHALL.**Revised Proposal.**

Many prospective members having definitely stated that they consider an entrance fee of £ 25 prohibitive, a new scheme has been drawn up.

The object of the somewhat high entrance fee proposed, has not been clearly understood. The sum aimed at, was £ 12,000 (cost of Conversion and Equipment) this to be obtained by a debenture issue, which was optional for members to subscribe to in lieu of paying the entrance fee, and would reach the figure mentioned, by 200 members investing £ 60 each, while it was anticipated that 200 members would pay the entrance fee of £ 25, thus providing a fund of £ 5000 for working capital, preliminary expenses etc.

The support though encouraging has not so far provided the promise of sufficient funds to justify a start being made on the original lines.

A revised proposal is therefore put forward, aiming at :—

- (1) A Smaller entrance fee.
- (2) A Larger membership.
- (3) A Smaller debenture loan.

The membership has now been put at 1000. (a conservative figure) and the entrance fee at £ 10/10., with £ 2/2, for each additional member of the same family.

The debenture issue would be limited to £ 5000. although it would be possible to start operations if a smaller sum were subscribed.

The cost of converting and equipping has been reduced by £ 2000, and the entrance fees received, would be used for this purpose.

Favorable consideration is being given by the London Country Council to the rent being fixed on a sliding scale, commencing at £ 1250 per annum instead of £ 1500 a furnishing firm in Town is also prepared to equip the Club throughout for a cash payment, the balance to be paid by arrangement.

It must be borne in mind that the opportunity for acquiring the premises will not be available for an indefinite period.

On receiving the necessary backing from 1000 prospective members, a firm option on the premises can be obtained, and a committee appointed to start work.

Once the Club is started it may be confidently expected that many retired planters will join as Town and Country members.

The entrance fee must now be paid by all, whether they take up debenture scrip or not.

The subscriptions of additional members of the same family would be fixed at—Town members, £ 3/3, Country members £ 2/2, and Foreign members £ 1/1.

Replies are requested on the following points.

1. Are you prepared to join the Club on the above lines ?
2. Is it your intention to take up debentures, and if so, for what amount ?
3. Is your membership to be an individual, or family one, if the latter, for how many ?

April 2nd 1925.
Motihari,
B. & N W. Ry., Behar. }

K. L. MACKENZIE.

The Premises are situated within one minute's walk of Charing Cross Station, and lend themselves readily to conversion into Club premises.

Preliminary Plans have been prepared by an Architect, who has had great experience in this class of work.

The demand for a Club of this description is great, the accommodation available in many of the surrounding Clubs being inadequate.

The Premises can be obtained at an annual rental of £ 1250 per annum, or the freehold for £ 22,500.

REVISED.

Estimated Expenditure (lease of 80 years from L. C. C.)

	£
Cost of converting and equipping	... 10000.
Rates and Taxes (estimated) including water	... 1200.
Insurances.	... 100.
Salaries and Wages	... 1540.
Maintenance of Staff	... 300.
Lighting and Heating	... 250.
Laundry.	... 200.
Circularising and postage.	... 100.
Repairs-Renewals to Furniture.	... 250.
Renewals of Glass and Linen.	... 150.
Sundries and General expenses.	... 200.
Annual Rental.	... 1250.
	£ 15540.
Estimated Profits.	4661-5.
	£ 20,201-5.

Estimated Receipts.

			£
	Entrance Fees 1000 members @ £ 10/10,		£ 10,500.
18	Furnished Rooms. at £ 3 per week.		
10	" " (smaller) at £ 2-5 per week.		
		£ 5148.	
	less 10% empties. £ 514.		£ 4,634.
* {	125 Town Members at £ 5-5 Annual Subscription	657-5	
	125 Country " at £ 4-4 " "	525.	
	750 Foreign " at £ 2-2 " "	1,575.	

Estimated Profits on Coffee Room, Wines, Spirits.

Tobacco etc. after paying Catering Staff. 1,200.

Profits on Billiard and Card Tables after paying Markers 500.

Laundry Profits. 100.

Profit on Valetting Services to Residents.

34 at £ 15. 510.

£ 20,201-5.

STAFF.

		£
	Secretary and Office Establishment.	505.
5	Housemaids @ £ 40.	200.
3	Waiters @ £ 78.	234.
4	Valets @ £ 78.	312.
2	Waitresses @ £ 52.	104.
2	Page Boys @ £ 30.	60.
2	Lift Boys @ £ 30.	60.
1	Night Porter @ £ 60.	60.
		£ 1535.

* There is no reason why this number should not be exceeded.

COVER CROPS.**Their use in Cultivation.**

LECTURE BY MR. R. M. RICHARDS, M. B. E., A. R. C. SC., F. C. G.

Under the auspices of the Malay Peninsula Agricultural Association Mr. R. M. Richards, M. B. E., A.R.C. SC., F. C. G., on Monday evening, the 30th March, in the Caledonia Club, gave the following very interesting and instructive lecture on the use of Cover Crops in connection with the cultivation of Rubber and the Coconut Palm.

My purpose in presenting this paper is primarily to endeavour to clear up certain misconceptions regarding the use of Cover Crops in general, because I am aware that erroneous ideas exist in this country; secondly to place on record my views on the question of the most suitable covers for use under Rubber and Coconuts, because the subject is of no inconsiderable importance to the Rubber and Coconut producing industries in Malaya; and thirdly to comply with a request for information made by one of my friends.

Comparatively recently the question of Cover plants has become prominent in Malaya and has been made the subject of several papers or lectures by Messrs. Berenger, Marsh, Milsum and Sanderson. It is with no desire to criticise the information disseminated by these gentlemen that I venture to discuss the subject. I merely wish to add to the distribution of knowledge and I do not hesitate to say that there is still room for the small share which I propose to give in this lecture.

The literature on the subject of the employment and utility of plants belonging to the family Leguminosae as cover crops has the making of a small library, and I do not find it easy to make a convenient starting point to my discourse. In order to explain the use of coverplants I must attempt to give a summary of the evidence bearing on the subject and perhaps our present object may be carried out in the best way by considering what information I can give under the following sub-headings:—

- (i) The use of cover plants in general.
- (ii) The fixation of gaseous Nitrogen by "leguminous" crops.
- (iii) The appropriation of the Nitrogen so fixed.
- (iv) The effect of the cover crops on the soil.
- (v) The cover plants advocated for use in this country.

(i) The use of Cover Crops in General.

Sampson in his book "The Coconut Palm" ¹ says that "the uses claimed by the cover crop may be enumerated as follows:—

¹ The Coconut Palm, H. O. Sampson, C. I. E. 1923.

(1) By covering the surface soil they keep down the growth of weeds, and will even at times eradicate such weeds as Emperor grass (lallang)

(2) By covering the ground they prevent surface wash.

(3) By covering the ground they check the loss of soil moisture by evaporation.

(4) When they are ploughed in they add humus to the soil.

(5) If they belong to the family Leguminosae, they can fix the Nitrogen of the air, and this can be rendered available to the Coconut when the cover crop is ploughed in."

Holland (2) in a leaflet published by the Department of Agriculture Ceylon, writes of their advantages:—

(1) Nitrogen is assimilated (in the family Leguminosae) from the atmosphere by bacteria found in the root nodules.

(2) Fallen leaves and loppings form a surface mulch which when incorporated into the soil provides additional humus.

(3) The soil is shaded from the tropical sun and loss of humus is avoided.

(4) Soil erosion is lessened (a) by roots and stems checking the flow of water; and (b) by branches and leaves preventing direct impact of heavy rain on the soil.

(5) The growth of weeds is checked.

(6) In young clearings these plants can take up and retain plant food which might otherwise be lost by wash.

(7) The roots of green manure plants tend to open up the soil.

Those of us who have experience with certain cover plants know that it is possible to keep down the growth of weeds. With adequate control and proper application of methods it is known by a few that a heavy growth of lallang can be kept down successfully by *Mimosa Invisa*.

Generally I imagine I am correct in stating that the experience of most planters with cover plants in this country has not been too fortunate. As the result of planting *Centrosema plumieri* in many places weeds have grown in profusion and weeding has become more expensive. Also, as a result of planting *Mimosa*, lallang has grown up and has cost money to eradicate.

In the "Planter" issued in March, '25, you will find an answer by Mr. Sanderson (3) to a question put by Mr. Standly. Speaking of *Mimosa Invisa* the question was asked, "Was it grown economically or was it costly?" The answer was given, "It was very costly and more particularly during those months following clearing up." Mr. Sanderson also says *Mimosa* is "a difficult cover to handle," and that "he would not like to try it." So opinions vary as to the value of cover plants even in this respect, for I consider that *Mimosa* is not costly if control is efficient; it is the best cover I know; it is the easiest cover to handle; and I would advocate that every planter should "try it". No one will dispute the fact that covers prevent surface wash. Too much is said about covers only preventing wash on hilly and undulating lands. In all flat coastal alluvial clay lands in Malaya covers may be equally useful in preventing wash—for wash is very considerable; as the cost of cleaning drains year after year testifies.

We will agree then that a cover crop may be of distinct utility in checking soil wash. But I would not advocate cover plants alone to prevent wash on slopes. First there must be some form of terracing, whether it is accomplished actually by building terraces on contours, or in perhaps the better way, by making drains on contours with the excavated earth placed on the upper side, or in any other way, so that the surface wash is primarily utilised for levelling the terraces and in order that rain water may become gravity water.

The cover plants are best employed to hold up the soil on banks or terraces and so consolidate them. When sufficient levelling has taken place on the terraces cover plants may be permitted to cover the whole ground with advantage.

"As a protection against the loss of soil moisture there is nothing to justify this claim. It is well known that the surface of vegetation loses much more moisture from transpiration from the leaf surface than will a soil surface unprotected in this way, even without a soil mulch." (4) I quote H. C. Sampson. Again Lock (5), in "Rubber and Rubber Planting," writes, "In connection with weeds and the use of cover crops one remarkable fallacy requires to be very clearly pointed out. It has been asserted that a close cover of leafy plants is a preservation against the effects of drought; and the moist surface of the soil beneath such a crop has been pointed out as evidence of the conservation of moisture. A leafy crop however is capable of evaporating three or four times as much water as a bare surface of soil." Lock also adds that "in times of drought therefore a thick covering

(3) Cover plants for Heavea Plantation "The Planter," February and March 1925. Lecture by A. R. Sanderson.

(4) "The Coconut Palm" loc. cit.

(5) "Rubber & Rubber Planting" by R. H. Lock, sc. B.

of living weeds is a special danger" and "the best preservative against the effect of drought is a thick covering of dead leaves." Sampson also writes "The upper layers of soil on heavier classes of land are already too damp and the cover crop aids in getting rid of the excessive moisture and thus improves the drainage and aeration of the soil. A heavier soil also is usually much more fertile and therefore the stand of the cover crop will be much more complete."

I must admit that I have been guilty of being somewhat misleading in this connection and supporting the fallacy that cover crops increase the soil moisture. In the heavy clay lands of the coastal districts of the west coast of the Peninsula a well grown cover plant sheds its lower leaves and these accumulate and are retained in a damp condition suitable for bacterial action to bring about their decay and form a surface mulch which eventually becomes humus. These heavy clays have for the most part lost all trace of humus which was present before the jungle was felled. The presence of organic matter gradually incorporated into the soil greatly increases the capacity of the soil for holding water. The roots of the cover plant absorb the excess of water from below while the presence of a surface mulch of damp dead leaves increases the moisture content of the upper layers. I think that both under Rubber and Coconuts a well grown cover crop gives advantage in this way. The fact that a leafy cover by transpiration evaporates 3 or 4 times as much water as a bare surface must not be forgotten. Also a loose, powdery surface soil loses less water than a caked surface. This question of the value of the surface mulch of fallen, rotting leaves requires further investigation.

That when cover crops are ploughed in and incorporated into the soil, organic matter and humus is added needs no discussion. Opinions vary as to the significance of adding humus and most Agriculturists advocate this in coarse sandy soils or sandy soils only. I think we in this country would select, if we had the chance, a black soil rich in humus with a good clay subsoil. A soil rich in humus is generally considered to be a good soil. Soils containing large quantities of organic matter are usually rich in Nitrogen

Whether we plant rubber or coconuts or oil palms on such land we need not fear the results. I would then argue that the addition of organic matter (the cause of the black colour referred to above) would be beneficial.

That cover crops of the family Leguminosae are able to obtain Nitrogen from the air is a well known fact. We will consider this under another heading. That the roots of cover plants tend to open up the soil and improve it physically may be said to be a definite advantage.

(ii) The Fixation of Gaseous Nitrogen by "Leguminous" Covers.

The fact that assimilation of free Nitrogen from the air takes place in Leguminous plants is quite clear, but the manner in which the process is carried out by the combination of plant and bacteria is still obscure. Noble and Hiltner and others have shown that the nodules on the roots of the plants are responsible for the absorption of gaseous nitrogen and that other parts of the plants are incapable of such absorption.

Hellriegel and Wilfarth in Germany first showed that a direct relationship existed between the possession of root nodules and the assimilation of free nitrogen of these plants. With nodules the plants thrive luxuriantly; without them the growth is limited unless combined nitrogen (as nitrates) is supplied.

The form, number and arrangement of root nodules varies considerably. They are formed by a soil organism—a bacterium—known as *Bacterium radicicola*. The organism penetrates the root by way of the root hairs. Within the cells of the host plant the bacteria multiply greatly and the majority assume a branched turgid form, and as such are distinguished as "bacteroids." By growing Leguminous seedlings in sterilised sand, to which a full food-supply except Nitrogen in a combined form has been added, it has been shown that failure takes place from want of Nitrogen. If a watery extract of soil be added to the sand—especially if the soil had already grown leguminous crops—the plants thrive normally and a full development of tubercles takes place on the roots. As I have said it is still obscure as to how the absorption takes place. It appears that the relationship between the bacteria and the leguminous plant is one of symbiosis or mutual assistance.

(iii) The Appropriation of the Nitrogen so fixed.

It is on this question that erroneous ideas exist and on which I am aware there is considerable misconception among planters in Malaya.

I have heard it said that the roots of a rubber tree grown among leguminous covers, are able to penetrate the nodules and absorb their stored-up Nitrogen. I have also heard it said that the Nitrogen in assimilable form is given to the soil by the disintegration or separation from the host plant of the nodules.

Also that in the case of an annual plant, like *Mimosa Invisa*, it is better to let the aerial parts die away so that the roots may decay in the soil and liberate the nitrogen stock of the nodules on the roots below ground.

That roots of such a plant as Hevea (or Cocos) could live parasitically on the roots of another plant is of course absurd. It is impossible. There are plants which are capable of growing on Hevea by penetrating into its tissues; but Hevea cannot absorb material from any living plant in any way.

The other two suggestions are not quite so easily shown to be fallacies, but I will endeavour to explain in detail.

The plant Bacteriologist and Pathologist, Erwin F. Smith in his work "Bacteria in Relation to plant Diseases" (6) has reviewed the whole question of root nodules in Leguminosae very fully. The bacterium he named *Bacterium Leguminosarum* and up to 1911 he favoured the view that the organism is parasitic on the plant rather than the accepted symbiotic relationship.

I refer to this only to show that for a long time conflicting views existed concerning the relationship of the organism of the host plant. Mutual assistance is now the accepted view. The bacterium penetrates and lives within the tissues of the host plant. Being supplied with sugar and proteins found in the cells into which it has penetrated the Bacterium can in some degree fix Nitrogen from the air. The Nitrogenous compounds are transferred to the host plant by the digestion of most of the bacteroids, and nitrogenous food material is thus acquired by the higher (host) plant. "There is a parallel in the behaviour of Leukocytes of the animal body, which is the leading feature of Phagocytosis," (7) following in this case, on the active fixation of nitrogen from the atmosphere.

"The greatest amount of nitrogen assimilation takes place when the formation of bacteroids has reached a maximum, at which stages the plants are beginning to flower; during the ripening of the fruits the nitrogenous compounds are removed from the nodules and their nitrogen content becomes reduced to near that of the rest of the plant," (8) It has been shewn that Lupin nodules in which the bacteroidal tissue was fully developed contained 5.2 per cent. of nitrogen, mostly in the form of proteins; when the plants were in flower; later when fruits and seeds were ripe the nodules contained only 1.7 per cent.

No increase of nitrogen is observable actually in the soil on which the leguminous plants are growing. The nitrogenous compounds produced are subsequently absorbed and utilised by the leguminous plant.

(6) "Bacteria in Relation to Plant Diseases" Erwin F. Smith. Carnegie Institute.

(7) "Botany of the Living Plant." F. O. Bower, F.R.S., 1923,

(8) "Agricultural Bacteriology," J. Percival.

Although by far the greater proportion of the bacteria and bacteroids undergo degeneration and absorption, some are set free when the roots and nodules disintegrate on the death of the plant. These organisms may infect the leguminous crops subsequently grown on the same soil.

To quote Professor Bower⁹ — "In annual leguminosae the greatest development of these bodies (bacterial masses) is reached at about the time of flowering. But from this time onwards their numbers diminish. Most of them become dissolved, and the evidence indicates that their organic materials are drafted off into the conducting system of the host. When the seeds of the leguminous plants are ripe the nodules have shrivelled, and relatively few of the small bodies remain. These are set free into the soil as the nodules rot. The bodies set free are rod-like and motile, and are called *Bacterium radicicola*." Or to quote from another modern text book—"The host plant sooner or later gets the better of the parasite and consumes these fat bacteria, their proteins proving valuable food. If the crop be then ploughed under (a process called green manuring), the soil is enriched in nitrogen at the expense of the air"¹⁰.

In order to obtain the full beneficial effect it is necessary to return the whole green crop to the soil. If this is not done, the store of nitrogen in the soil is not increased at all as a rule, while there is an actual loss of other nutritive materials used by the cover plant. The process of transference of the nitrogen to the host plant is sufficiently explained. I give the general consensus of opinion by botanists. Much remains to be proved as the problems of absorption have never been solved definitely.

As an example of the fact that when the pods are mature the percentage of nitrogen in other parts of the plant decreases, some interesting figures are shown in analyses by Kinsely.¹¹

Period.	Leaves.	Pods.	Stems.	Roots.	Nodules.
Full bloom	4.02	3.07	1.15	0.92	5.17
Pods well formed	3.70	3.38	0.88	0.83	4.29
Pods very large	3.41	3.68	0.90	0.66	3.70

The figures represent percentage amount of nitrogen of the dry weight of lupin plants at different stages.

"Whiting found that at the time of harvest about 74 per cent of the nitrogen was in the tops, the remainder being distributed through the roots and nodules."¹²

⁹ Loc. cit :

¹⁰ "Text Books of Botany" Coulter Parnes, and Cowles. Chicago.

¹¹ Extract from Tropical Agriculturist, November, 1924-

¹² Bull. 179 University of Illinois. Agric. Exp. Station Excp. "Trop: Agriculturist."

That some nitrogen is added to the soil when the plant fruits and the roots and nodules decay is certain, but it has never been determined that at any other time nitrogen is excreted into the soil.

Koch ¹³ states that nitrogen is mostly localised in the leaves and young twigs and the roots contain one seventh to one third of the percentage of the former.

It is well at this stage to indicate that misconceptions may have arisen because certain other bacteria living in a free state in the soil, are able to fix nitrogen. One of these is *Azotobacter chroococcum* which can be isolated from most soils. These organisms have no connection with the present subject since they have nothing to do with the formation of nodules on leguminosae.

Briefly the concensus of opinion is described by E. J. Russell¹⁴.

"In the presence of easily oxidisable organic matter especially carbo-hydrates, certain organisms are able to fix gaseous nitrogen and build it up in the form of protein. This process is called nitrogen fixation. Decomposition of the host plant (when thoroughly rotted) gives rise to ammonia, which is then oxidised to nitrates. The nitrates are taken up by the growing plants (in our case by the rubber tree and the coconut) and built up into protein".

(iv) The Effect of the Cover Crop on the Soil.

We have discussed in some detail part of this question earlier in this paper. There are however some other points which require consideration. Many of us know that if Coconuts are grown with a cover of Indigo (*Indigofera*) a remarkable change takes place in the colour of the leaves. The Coconut palm leaves take on a deeper green; a most noticeable effect. The same result takes place when Coconuts which have been under grass or clean weeded land, are grown with a crop of Mimosa. We cannot explain these phenomenal changes by any argument we have yet adduced. Under a well grown crop of Indigo or Mimosa an accumulation of fallen leaves forms a mulch which is gradually incorporated into the soil. Moreover in the case of Indigo the roots decay in the soil. It is thought that an increase in soil bacteria (not the organism, *Bacterium*

¹³ Chief of the Plant Breeding Station, Java.

¹⁴. "Soil and Manures," Dr. E. J. Russell, F. R. S.

radicicola of nodules) takes place as the result of the decay of the leguminous plant or parts of the plant.

It has been shown that different crops act on the soil bacteria in different ways. Thus leguminous crops favour the development of bacteria in general in the soil. It is well known that carbohydrate material added to soil has a stimulating effect on the general plant growth. By using a cover crop the food supply of the *Azobacter* group of bacteria is increased and the tilth of the soil is increased thereby.

It has also been shown that the nitrogen-carbon ratio in material returned to the soil has a very pronounced effect on the rate of decomposition. When the nitrogen-carbon ratio is wide (as in straw, 1 to 75) there is little development of nitrate. When leguminous material, with a narrow ratio of 1 to 10, is incorporated there is an immediate and rapid nitrate development. It is also thought that as a result of increased bacterial activity and growth there is a renewal of available phosphate supply.

This matter requires further investigation.

I can find no other interpretation of the effect of a "live mulch" than that bacterial activity in the soil is increased with the result of greater nitrate formation. It is possible also as Van Hall has written in his "Cocoa"¹⁵ that shading of the soil may have an advantageous effect. The cover plants "enrich the soil with nitrogen and make it friable with their extensive root system, while they provide humus by means of fallen leaves and preserve the humus and the texture of the soil by the shade which they afford." One might add that the shade so provided would influence the development and activity of bacteria. Loosening the soil would have the same effect.

(To be continued).

¹⁵ "Cocoa" by Dr. C. J. J. Van Hall, Fultenzorg.

The Planters' Chronicle.

Recognised as the Official Organ of the U. P. H. S. I., Incorporated

Secretary's Registered Telegraphic Address "UPASI," MADRAS.

Mr. EDWIN VINCENT.—Managing Editor, Coimbatore,

Telegraphic Address:—"CHRONICLE," Coimbatore.

VOL. XX No. 21]

MAY 23RD 1925.

[PRICE AS. 8.

CONTENTS.

	PAGE.		PAGE.
Mundakayam Revisited	... 319	The Mysore Planters' Association	... 329
Mundakayam Planters' Association	... 321	Cover Crops	... 346
South Travancore Planters' Association	... 327		

PRICE OF "A" COFFEE.

BY CABLE LONDON, 22nd May, 1925.

142s./—per cwt. Market Flat.

MUNDAKAYAM REVISITED.

Elsewhere in this issue will be found some extracts from the report of the Committee of Management of the Mundakayam Planters' Association. The ordinary general meeting of this Association was held on Saturday the 9th instant and we hope next week to publish the proceedings. The district, it will be noted, is making some headway as a tea producer but it is mainly as a rubber area that we know it and rubber today is making history. According to a recent cable, business has been done in 2s. 5d. and this brings us to the question of restriction of output which in most circles is regarded as the "power behind the market" a theory that is denied in at least one important quarter. The city editor of "The Times" will have it that although restriction has undoubtedly had its effect on the Rubber trade it is not the cause of present prices which are due rather to increased consumption. However this may be, we can at least congratulate the Mundakayam Planters as well as those of other districts on the fact that Rubber has turned the corner, so to speak, or as a Ceylon paper has it, "got out of the rut." Incidentally we are indebted to the same contemporary for the choice yarn of a school inspector who, intending to warn a teacher "to turn over a new leaf" informed him that he expected him to "put out a new shoot". Whether the pedagogue succeeded in accomplishing that vegetative process is unknown but talking of vegetative

process reminds us of the experiments that are going on in Mundakayam in the matter of Budding of Hevea. It will be years before we can say whether they have succeeded in "putting out a new shoot" but in the meanwhile it is refreshing to think that in this, after all quiet backwater of the rubber producing areas of the world, in this comparatively insignificant corner of the tropics, there are men with imagination and courage; with faith and knowledge too, who are applying the latest theories of the "Scientific Johnnies" to their task of growing rubber. At the meeting, a very highly deserved tribute was paid to Mr. Herbert Ashplant, the resident Mycologist, whose recent bulletin on Budding has been reproduced, we notice, and broadcasted by the R. G. A. Mr. Ashplant is apparently the *deus ex machina* who is responsible for these experiments.

We do not think we are overstating the case when we say that out of a welter of conflicting opinions, misleading (often) statistics, and heated controversy elsewhere, the fact emerges serene and unruffled, that Budding of Hevea as a means of improving race, yield and disease resistance remains a theory. And a theory it will remain for some time to come but judging by the manner in which the problem is being tackled, it is by no means an exaggeration to say that out of Mundakayam may eventually come practical facts which may or may not controvert the theorists. At the moment we do not think we are far wrong in saying that results have not been overwhelmingly encouraging. It is precisely for this reason that one must admire the 'never say die' attitude of the experimenters, who are indeed faced with the possibility that even if they reach the higher percentages in budding, the areas planted with the progeny of their favourite bud-mothers may yet let them down.

In another direction the experiments of the Mycologist would appear to have passed the theory stage. We refer to spraying against secondary leaf fall, or *Phytophthora Meadii*, which is to all intents and purposes universally in force, in the district. Mr. Ashplant's views have already found ventilation at U. P. A. S. I. meetings, and in these pages, so that there is no need for details to be gone into here. It is not possible at this time of the year for a casual visitor to judge its effect, the trees are in that beautiful new clothing of green foliage which Hevea adopts after the wintering period. The presumption is that they will this year retain this cover and not, as in the past, divest themselves, involuntarily it is true, of so useful an adjunct. It remains to be seen, but let us say at once that nobody doubts for one moment, the result.

For the rest, Mundakayam appears to continue to plough its furrow, in its own way, in its own good time and rather oblivious, if one may say so, of the man next door. The effect it has on an old resident may be summed up in a paraphrase of the delightful apophthegm at the end of the management committee's report under the heading of *Labour*. "Everything as usual",

MUNDAKAYAM PLANTERS' ASSOCIATION.

We publish the following extracts from the Report of the Committee of Management, for the period 1-1-24 to 31-3-25.

Membership Acreage and Crop.—The Membership remains the same as in 1923. Mr. Waddington has been added to the list of Honorary Members. Instructions were given during the year for a Membership book to be drawn up but the Honorary Secretary has not been able to find time to start this book and leaves the work to his successor in Office.

An acreage Census was taken during the period and the acreages have been altered as follows :—

	Last Report	Increase or Decrease	1925—26
Rubber	12,118 acres	Decr. 46 acres	12,072 acres
Tea	1,089 „	Incr. 273 „	1,362 „
Total.	13,207 acres	Incr. 227 acres	13,434 acres,

Members were reminded in accordance with the Articles of Association that any change in their planted acreage should be notified to the Honorary Secretary immediately.

District Crop for year 1-4-24 to 31-3-25.

Rubber 2,711,520. lbs. Tea 684, 976 lbs.

Meetings.—In addition to the last Annual General Meeting held on 23rd February 1924, there were three ordinary Quarterly General Meetings held on 31st May, 2nd August and 20th December respectively ; the average attendance was fourteen. To conform with the Articles of Association it will be necessary in future to hold a General Meeting in each quarter of the year, the one held in the 1st quarter to be the Annual General Meeting.

Six Meetings of the Committee of Management were held during the period under review, the attendance averaging six.

Accounts.—(a) *U. P. A. S. I.* During the period, the following subscriptions fell due for payment to the *U. P. A. S. I.*

		Amounts.
1923-24 4th quarter	...	3,642 1 0
1924-25	...	14,321 14 0
1925-26 1st quarter	...	3,358 8 0
	(due 1-4-25)	— — —
	Total Rs.	21,322 7 0

Of this, it will be noted that all but Rs. 1411-4-0 has been transmitted to the U. P. A. S. I. Of this amount Rs. 800-8-0 has been paid since the closing of the accounts, and the remaining Rs. 610-12-0 is the 1st quarter subscription of two members who have not as yet sent the money to the Honorary Secretary. The response to the Committee of Management's appeal for greater promptitude in the payment of subscriptions has been well met, and we can congratulate ourselves on being practically up-to-date, conforming with U. P. A. S. I. desire for payment of all subscriptions in advance i. e. on the 1st of the quarter for which they are due.

(b) *District*.—A sum of 3 as. per acre was called up during the fifteen months, totalling Rs. 2,490, which together with Rs. 47 Bank Interest made a total Revenue of Rs. 2,537. After allowing for Rs. 600 to Delegates of the Association to U. P. A. S. I. and Meeting Incorporation expenses Rs. 119, Depreciation Rs. 140, and Donations Rs. 350, the current work of the Association cost the sum of Rs. 1,027 as against Rs. 815 for 1923. Grand total of the Expenditure was Rs. 2,736 as against Rs. 1,725 for 1923. On current working therefore, the expenses of the Association have been increased by Rs. 212, but this increase is only commensurate with the fifteen months period against the twelve months and the increased stationery expenses of the Association. The Excess of Expenditure over income on the fifteen months working amounts to Rs. 199.

The accounts have been audited by V. Vadivel Pillay Esq., of Alleppey, and his report is attached.

Donations and Subscriptions.—A sum of Rs. 300. was given by the Association to the Kottayam Suburban Flood Relief Fund, and a sum of Rs. 50. to the Mundakayam Memorial Well to His Highness the Maharajah.

Southern India Planters' Benevolent Fund.

During March 1924 the sum of Rs. 230, was collected for the Benevolent Fund according to a list sent round at the last Annual Meeting. This subscription belonged to 1923-24 and in August 1924, the Secretary U. P. A. S. I. was again appealing for subscriptions

stating that a New Rule of the Fund was that those who had not paid their subscriptions before the annual General Meeting would not be able to vote. In response to this appeal, the Honorary Secretary circulated the district and the sum of Rs. 385. was collected in November 1924, to which has to be added the sum of Rs. 50, 1923—24/24—25, subscriptions, from an Estate, received since the closing of the Accounts. The response from individuals was gratifying, but only two Estates subscribed and it is hoped that in future a greater number of Estates will contribute to this deserving Fund. The Committee of Management recommend to Managers to appeal to their Principals or Agents to help the Fund.

St. George's Church Yard Fund, Peermade.

During 1924, the sum of Rs. 149. was collected and sent to this Fund. The Honorary Secretary has already circulated the district for 1925 and it is hoped that Donations will be liberal.

U. P. A. S. I. Sports Club.

Eight new Members joined during the period under review of whom Messrs. Gillespie, Jodrell and Smith have left the District. This Association's Membership now is Messrs. Murphy, Brooke, H. B. Macpherson, A. D. Vincent, McPherson, Conner, Symons and Rutherford. The Association are indebted to Mr. Conner for undertaking the work of District Sports Club Representative. The Annual Subscription, payable to the Honorary Secretary, is Rs. 10 for Seniors and Rs. 5 for Juniors.

S. I. P. Cricket Club.

The sum of Rs. 80. subscribed in 1923 to this Club (which is now in abeyance) was given, with the consent of subscribers, to the Mundakayam Club Cricket Fund.

Indian Tea Association Scientific Department Journal & Publications

The Annual Subscription is Rs. 20. Two Members have subscribed for the current year.

Sri Mulam Popular Asembly Meetings.

1924. *Representatives.* Messrs. E. T. C. Farr and A. R. St George.

Subjects. Motor Licenses and Kottayam-Kumili Road.

Mr. Farr and Mr. St. George have already been thanked for the ready assistance they rendered the Association.

Motor Licenses.

Regulations are now being more stringently enforced as a result of our representations.

Kottayam—Kumili Road.

The work on this road received a serious set back during the severe monsoon weather encountered in July. Recently the work has been expedited and large heaps of metal have been collected on all parts of the road. The Association much appreciates the great effort of the Travancore Government to restore the road.

1925 *Representative.* Mr. J. R. Vincent.

Subjects. Cattle Trespass and Registration of Bandies.

The thanks of the Association are due to Mr. Vincent for so ably representing them. His detailed Report is on the table and makes interesting reading; it would appear that as a result of his representations, His Highness's Government are giving both matters their weighty consideration.

U. P. A. S. I. Meetings.

Bangalore October 1924:—Delegate Mr. J. J. Murphy. Copies of the Book of Proceedings giving full details have been circulated to all members.

Ootacamund March 1925:—Delegate. The Honorary Secretary.

At this Meeting the U. P. A. S. I. Budget for 1925-26 was passed without comment as was also the Provident Fund for the Staff of the U. P. A. S. I. The question of a Provident Fund for the Native Staff was also mooted, but was deferred for further consideration. The Association might discuss this question at the next Quarterly Meeting.

The Central Travancore P. A. amendments to the Majority Report on the Anamalais Scheme to revise the Labour Department, were all supported by this Association.

Incorporation. The Association finally completed registration on the 27th August 1924. Printed copies of the Articles of Association have been circulated to all members, and as there is a large stock, further copies can be had on application to the Honorary Secretary.

Cost. during 1923	Rs. 312	1	5
-------------------	---------	---	---

„ 1924-25	Rs. 119	0	0
-----------	---------	---	---

Total cost of Incorporation	Rs. 431	1	5
-----------------------------	---------	---	---

Produce of Edavagai Lands Income Tax-Test Case.

The history of this case has become somewhat involved. The original Nenmeny Case ceased in the course of the year, to be a properly representative one, as the Government has been successful in establishing a claim to the chief's land. With regard to the Rs. 500/- voted towards this case, Mr. Vincent generously agreed to forego his claim to Rs. 250/- of it, provided that same were devoted to a reduction of the expenses of a further Test Case. Together with the Rs. 500/- to be contributed by the Travancore Combined P. A. (mainly due to Mr. Vincent's representation and the support of the Central Travancore and Kanen Devan Planters' Asscns:) we have Rs. 750 to be used towards the payment of the case on which Mr. Krishna Aiyangar and Mr. Sesha Iyer are now engaged. The maximum all in costs of the case should not exceed Rs. 1,750 in which case only Rs. 1,000 remains to be collected from the Estates affected on an acreage basis. That would amount to approx. 1½ as. and 3 as. per acre on Sterling and Rupee Estates respectively (according to agreement).

Members are probably aware that at the recent sitting of the Legislative Council, the Income Tax Regulation Amendment Bill which incorporates the recommendations of the Select Committee was finally passed, and that there will be no difficulty *in future* as regards taxation of Income derived from Edavagai Lands. It is anticipated that the case, which now only refers to the current and past year's assessments will be successful and Mr. Krishna Aiyangar assures us that he is doing "all that is necessary and possible for getting our contention upheld by the High Court."

New Telegraph Office:—From March to July 1924, the Association were in correspondence with Government with regard to the establishment of New Telegraph Offices at Kanjirapally and Palai. Attempts proved abortive as Government would not move without a ten year monetary guarantee, which of course, it was impossible for the Association to give.

Telegraph Hours. The Telegraph Hours of the Mundakayam Sub Office were reduced on 2nd June 1924, by 3 hours. As a result of strong representations to the Postmaster-General, Madras Circle, these were again increased by two hours, and the hours of telegraphic service are now 8 a. m. to 5 p. m. The Superintendent, Travancore Division is again appealing to us to allow a reduction, but the Honorary Secretary has written firmly pointing out that we cannot agree to such reduction, and suggesting alternative means to meet his complaint about the overworked Staff.

Legislation.

Travancore:—The Honorary Secretary compiled and sent in the Preliminary Electoral Roll in preparation for the coming Council Elections. It has since been revised by the Revising Authority Messrs. Thom and Saywell, and the corrections sent in for the final Roll.

The Association is nominating Mr. J. B. Cook for the Planting Member's Seat in the Council.

Madras. Mr. C. R. T. Congreve has resigned his seat on the Presidency Council, and Capt. E. G. Windle has been unanimously elected as Presidency Council Planting Member.

Post Office Well.

The Association has undertaken to bear the expenses of digging a Well for the Postmaster up to a cost of Rs. 25. The Superintendent of Boyce Estate is at present cutting this Well.

Cooly Chattram.

During the period under review, the upkeep expenditure amounted to Rs. 246 of which, as usual, the Central Travancore P. A. have paid the half. A further sum of Rs. 59-11 was spent in repairs (kindly executed by Mr. Harley) and of this amount also, the C. T. P. A. paid half share. 8361 coolies made use of the buildings during the period, of whom 8254 were from Peermade and Vandiperiyar, and 107 from Mundakayam. The Honorary Secretary made an occasional inspection and found everything in order. A new Sign-Lamp is required.

Labour.

As usual labour troubles were insignificant and 1924-25 has been quite normal.

MEMBERS:—R. Harley. E. S. Conner, H. V. Tringham, J. R. Vincent.

M. S. CALDERWOOD,

Hon. Secretary.

G. MCPHERSON,

Chairman.

SOUTH TRAVANCORE PLANTERS' ASSOCIATION

Minutes of the Annual General Meeting of the South Travancore Planters' Association held at the Quilon Club, Quilon on Saturday May 2nd at 10 a. m.

PRESENT : Messrs. E. Lord, C. Hall, J. B. Cook, E. Hall, A. H. White, E. T. C. Farr, R. N. W. Jodrell, W. Gillespie, R. F. Crowther, A. J. White, L. J. T. Polgreen, J. W. Newman and F. G. Millar (Hon. Secretary).

Mr. Jodrell was asked to take the Chair.

Notice calling the Meeting and Agenda was read by the Hon. Secretary.

Minutes of the Quarterly Meeting on 7th February 1925, having been published, were taken as read and confirmed.

Report of the Delegate to U.P.A.S.I. General Committee Meeting 25th March 1925. Mr. Lord spoke with regard to the business transacted at this meeting particularly in relation to the Amendments to the Anamalais Scheme brought forward by the Central Travancore Planters' Association and also in regard to the subsidy payable by the U. P. A. S. I. towards the Labour Department.

The Chairman proposed a vote of thanks to Mr. Lord for his report and for representing the Association at the above Meeting. Carried.

Report of Delegate to Sri Mulam Popular Assembly March 1925 Mr. E. Hall reported with regard to his representation with reference to the condition of the Punalur—Pathanapuram—Koney—Manarakulunj—Sittar Road and said that the Dewan had listened to the appeal sympathetically and that repairs to Pathanapuram—Koney section had already been undertaken while the other sections of the road would probably improve in due course.

A vote of thanks were accorded to Mr. E. Hall for his report and for acting as Delegate to the Sri Mulam. Carried.

Correspondence:—Letter Mis. 1260/75/99 dated 27th April from Commissioner, Devicolum notifying the Association that Mr. J. B. Cook had been declared to be elected as Member of the Travancore Legislative Council for the Planting Constituency.

Letter P. A./22 dated 17th April from Superintendent, Labour Department U. P. A. S. I., Palamcottah with reference to certain in rates of wages and condition for the employment of Estate Gang Labour.

Proposed by Mr. E. Hall and seconded by Mr. Farr "That owing to the fact that this District does not pay the same rates as those prevailing in the Kanan Devan District this Association is not prepared to accept the particulars of wages etc. as sent by the Superintendent, Labour Department: Palamcottah" dated 17th April. Carried.

Honorary Secretary's Report.—Mr. Millar read his report on the work of the Association during the year 1924/1925. Proposed by C. Hall and seconded by Mr. Crowther that the report be adopted. Carried.

Accounts. were place on the table. Hon. Secretary was requested to write to Hon. Secretary and Treasurer, the Lady Amptill Nursing Institute, Madras and find out what estates in the Association were covered by the annual subscription.

Proposed by Mr. E. Hall and seconded by Mr. Farr that Accounts be adopted and that a vote of thanks be accorded to Mr. J. Bruce for his services as auditor. Carried.

Election of Office Bearers. Proposed by Mr. Cook and seconded by Mr. Jodrell that Mr. E. Hall be elected Chairman for the ensuing year. Carried.

Proposed by Mr. Farr and seconded by Mr. A. J. White that Mr. Millar be asked to carry on the Hon. Secretaryship for another year. Carried.

The following Committee were elected :—

Messrs. J. B. Cook.

E. T. C. Farr.

R. N. W. Jodrell.

Election of Personal Member. Proposed from the Chair that Mr. W. Gillespie be elected a *Personal Member of the Association*. Carried.

Budget 1925-26. This was placed on the table and passed. Resolved that one anna per acre be collected as required for the ensuing year.

Incorporation. The Memorandum and Articles of Association were signed by the promoters and duly witnessed.

With a vote of thanks to the Chairman and Hon. Secretary the meeting terminated.

ERIC HALL,
Chairman.

F. G. MILLAR,
Hon. Secretary.

THE MYSORE PLANTERS' ASSOCIATION.**(INCORPORATED)-**

Proceedings of the 61st Annual General Meeting of the Mysore Planters' Association (Incorporated) held at the Kadur Club, Chikmagalur on Monday 6th April, 1925.

PRESENT: Major A. L. Hill, O.B.E., M.C., (Chairman), Mr. G. W. Breithaupt, Lt Col. W. L. Crawford, D.S.O., Messrs. A. C. W. Denne, S. H. Dennis, E. W. Fowke, G. V. R. Frend, C. H. Godfrey, P. Hunt, C. Lake, Captain J. Lee-Stewart, Messrs. W. H. F. Lincoln, F. I. Morgan, R. O. Oliver, E. L. Poyser, W. H. Reed, E. W. Rutherford, C. Sylk, W. R. Thompson and M. A. deWeck (Secretary).

The Notice calling the meeting was read.

The Minutes of the previous meeting were taken as read and confirmed.

Executive Committee's Report. Copies of the Report were laid on the table.

Report of the Executive Committee. (16-11-24 to 31-3-25)

MEETINGS. The Association held one Quarterly General Meeting on 8—12—24. The Executive Committee met once on 18-1-25.

Memorandum and Articles of Association. The amended Memorandum and Articles were printed and copies sent to all members.

Accounts. The accounts for 1922—24 were sent to the auditor for detailed explanation of certain items.

Collection of subscriptions. The total amount due for 1st half year has been collected and there are still two outstandings in the 2nd half. The amount due to the U. P. A. S. I. has been paid.

Defaulters. Repeated reminders have been sent to the Vakil to whom the U. P. A. S. I. entrusted the taking of a case against the defaulter. The Secretary U. P. A. S. I. has also sent repeated registered letters to the Vakil. He however refuses to answer in both cases.

The Secretary U. P. A. S. I. is now making enquiries with a view to transferring the case to another Vikil.

Winding up of North Mysore and Babahudin Planters' Associations. In reply to inquiries from this Association, the Secretary, U. P. A. S. I. states that the B P. A. did not wish him to undertake the liquidation of that Association and he found himself unable to undertake the post of liquidator to the N. M. P. A.

Hassan Cemetery. A letter, explaining the position and asking, for the views of all concerned was sent to all residents in the Hassan District. Twelve replies were received. Seven in favour of the site of the new cemetery being chosen in or near Hassan and five in favour of Saklasapur.

Roads and Communications. At the request of the Hassan District Board this Association wrote to them asking them to approach the South Kanara District Board in the matter of the early repair and re-opening of the South Kanara portion of the Boond Ghat Road.

The condition of this portion of the road and the need for early action in the matter was also brought to the notice of the Hon'ble the Resident in Mysore. An acknowledgement was received enclosing an extract of the report from the President, South Kanara District Board, showing the action taken by the Board in restoring the the road in question. A reply to earlier enquiries re this portion of the road was also received from the Collector, South Kanara.

Representation on the Mysore Legislative Council. A reply has been received to a letter from this Association to the Dewan,

Re-organisation of the Labour Department. The Secretary sent out two Circulars. The first on 15-11-24 asking for information as to estates joining the "B" Group, and the distribution of coolies on such estates. The second on 30-12-24 asking for information as to what class of work subscribers wished undertaken as from April.

At first very few replies were received in answer to the circular of 15-11-24 and, only after continual reminders in many cases, answers were received from all but three estates.

Ever then many members did not give the figures for distribution of coolies on their estates.

The figures of acreage from which replies were received are given later under this head.

In answer to the circular of 30-12-24 ten replies only were received mostly asking that the present work of the Labour Department should be carried on and that direct recruiting be added.

A meeting of the Executive Committee was held on 18th January to meet the Director, Labour Department and discuss with him this matter. The members of the Control Committees were invited to attend.

At this meeting it was decided that we wished to carry on the present activities of the Labour Department and to add to them direct recruiting.

Col Crawford, Messrs. Oliver and Reed agreed to give a trial with the help of a Government Labour Officer, to a co-operative system of Labour supply.

The figures to date of acreage subscribing to the "B" Group Labour Department for 1925-26 are as follows:—Subscribing 16,324, Not subscribing 822, Not yet answered 408.

The Secretary U. P. A. S. I. has informed us that the subscription to the reorganised Labour Dept. will be Re. 1 for coffee, Rs. 2 for Tea As. 8 for Rubber and Minor products.

Publication of Minutes.—The Secretary having protested against the cutting of the proceedings of a G. M. of this Association by the Madras Mail, the Madras Mail then published a justification of their action and denied having received the Secretary's protest. The Chairman put the matter before the Executive Committee at its meeting on 18th January, but it was decided to leave matters as they were.

Change at the Saklasapur Treasury.—In spite of the assurances and promises of Treasury officials at Hassan and Saklasapur the supply of rupees again failed causing considerable inconvenience to members. The Secretary wrote a protest to the Treasury Assistant Commissioner, Hassan, who replied to the effect that a considerable sum of rupees had, in the meanwhile, been sent to Saklasapur.

Monthly District Notes. Notes have been sent to the Planters' Chronicle for January and February but not for March.

Hassan Goods Shed.—For the period November 1923 to November 1924 a profit of Rs. 74-3-6 has been made from the cess on goods passing through the shed. This amount however has not been received.

In the matter of the insurance of the shed Messrs. Bayley & Brock, Insurance Agents, have replied quoting rates.

Nothing has been done in the matter of finding a new agent.

Birur Goods Shed.—Owing to the shed being now in the name of the M. P. A. a new agreement had to be entered into. A similar agreement to the old one has been signed by the Secretary, witnessed by two other members.

At the request of the Bababudin members the Secretary wrote to the Traffic Manager, M. & S. M. Ry., re the supply of waggons to Birur for despatch of crop.

Railway Out-Agency at Saklasapur.—A meeting was held at Saklasapur on 6th January at which Mr. Khan, traffic manager. Mysore

Rlys, Hassan District Board officials, Merchants of Saklaspur and some members of this Association were present. It was decided to open an out-agency at Saklaspur. As the Traffic Manager wished to know how many members would send their coffee by Railway, if the rates were slightly less than carthire and the railway made arrangements to supply carts to collect the coffee from estates, the Secretary was instructed to ascertain from all those members, within reasonable distance from Saklaspur, what average weight of crop they would be willing to send by this route. Eight replies only were received. Three replies definitely state that they would make use of such an arrangement and that they would send a total average weight per year of 165 tons. Four replies were in the negative and one reply doubtful.

Coffee Experimental Station and Cess:—The work on this station has been started and seed collected, although the final decision of the Leg: Council has not been made the U P. A. S. I. have already asked for the cess to be collected from members, as it is being and has been collected in other Districts, in order to put Dr. Coleman in funds. The question of collection of the cess has been referred to the Executive Committee, who instructed the secretary to begin collection.

Assessment of bungalows for income Tax:—The Deputy Commissioners, Hassan and Kadur Districts, were approached with a view to obtaining a level rate of Rs. 20 assessment on Planters' Bungalows. The Deputy Commissioner, Hassan, has placed the matter before the Income Tax Commissioner from whom no reply has been received. The Deputy Commissioner, Kadur, has replied that he is not prepared to accept the suggestions of this Association.

New Rule.—A rule reading "That any member proceeding on leave out of India shall appoint in writing another member of the Association to represent him and such written authority shall be sent by the first member to the Secretary of the Association" was approved by the Committee.

Letter of condolence.—The condolences of the Association were conveyed to His Highness the Maharaja in the sad loss he had sustained by the death of the late first Princess of Mysore. A reply thanking the Association for its message was received.

Delay of Mudigere Magistrate in dealing with a coffee stealing case of Mr. Poyser's—All correspondence in this matter, together with a letter of protest at the delay of the Mudigere Magistrates dealing with this case, was sent to the Chief Justice of Mysore. A reply has been received from the Registrar of the Chief Court of Mysore stating that a report in the matter has been called for from the District Magistrate of Kadur.

Wembly.—At a meeting of the E. C. on the 18th January it was decided that this Association is not in favour of the proposed holding of a stall, selling of the coffee in the cup and distribution of pamphlets at Wembly Exhibition in 1925 as it considers that the results from such expenditure would not be justified. The Secretary U. P. A. S. I. was informed accordingly.

Appointment of a Secretary.—Mr. de Weck, the present Secretary, having resigned, a circular inviting applications from all members and non-members was sent to all European residents in the Hassan & Kadur Districts. There were however no applications received. Mr. de Weck has now re-applied for the post, and has been re-appointed.

Alteration of U. P. A. S. I. Articles of Association.—The proposed alterations were discussed at the E.C. Meeting on 18th January and agreed to.

European Association.—In reply to a request from the European Association for a local representative. It was decided that the Secretary should act as local representative of the European Association if the E. A. so desired.

Letter from Government in re the proposed alteration of the criminal procedure code.—The Secretary was instructed to send a copy of this letter to all members so as to enable them to study the matter which would be brought up at the next meeting.

Vocational Training.—The Secretary was instructed to inform the Staff Captain, Madras District, that in the opinion of this Association there are no vacancies in planting for men of the class mentioned in his letter.

Reforms.—As required under the Mysore Representative Assembly Regulation XVIII of 1925 Government have been duly informed of the changes in constitution of this Association consequent in change of name and amalgamation.

Registration under the Mysore Societies Regulation.—Steps had been taken to get the Association registered under this regulation but, owing to non fulfillment of necessary conditions, this has not yet been accomplished. The required conditions have now been complied with and it is hoped that registration will be shortly carried out.

Transfers from the Nilgiri P. A.—Notice of wish to re-transfer to this Association from the Nilgiri P. A. was received from Mr. Smith of Attikhan Estate and Mr. Morris of Honnametti Estate. The transfer has been agreed to by the Committee and the Secretary U. P. A. S. I. informed accordingly.

Delegate to U.P.A.S.I.—Meeting on 25th March at Ootacamund. Owing to the inability of Messrs. Lake and Oliver to attend Mr. Reed was asked and agreed to act as our representative.

U. P. A. S. I. Budget.—The budget was circulated to the Executive committee who agreed to it.

Instruction to Delegate to U. P. A. S. I. Meeting at Ootacamund.—Instructions were sent to Mr. Reed as to how to vote on the subjects on the agenda viz. The Budget 1925—26. Rules of U. P. A. S. I. Buying Agency, Labour Dept. and alterations of Articles of Association.

Curers Circular. A letter was received from the Coorg P. A. expressing their regret that they had not had time to consider the matter and offering to take the matter up again. A reply was sent thanking them but informing them that there was no apparent necessity for taking the matter further.

Interest on Bond. After lengthy and vexatious correspondence the interest on the Rs. 1000 Mysore Loan Bond has not yet been received.

Election of Member to the Madras Legislative Council.—Capt. E. G. Windle has accepted the invitation of the U. P. A. S. I. to take Mr. Congreve's place.

Membership and Acreage.—At the beginning of the year 1924-25 there were 52 members, including 1 Personal Member, representing 88 estates making a total of 17368 acres, Coffee 17023, Rubber 110, Minor products 215, and Tea 20.

During the year owing to the death of a member and sale of estates to non-members, 317 acres have resigned leaving a total 17051 acres,

But to make up for this loss another 603 acres have joined for 1925-26 so that we start the new year with 17654 acres : Coffee 17157, Rubber 110, Minor products 216 and Tea 171.

Another Personal Member has also been elected and there are two more applications for Personal Membership.

There have been three Quarterly General and one Extraordinary General Meetings held during the year. The average attendance being 19.5.

S. I. P. B. F. Life Members.—There are 5 Life Members, 24 members subscribed a total of Rs. 265 and 9 estates subscribed Rs. 215.

The Association also subscribed Rs. 75 making a total of Rs. 555. The renewal of the grant of Rs. 50 per month which has been recommended by us for renewal every six months, has again been sanctioned by the Committee.

A. L. Hill	... Chairman.
W. L. Crawford	... Legislative Council, Member.
C. Lake	... Member.
C. R. Oliver	... Member,
W. H. Reed	... Member.

The Report was then gone through item by item.

Accounts. The Chairman regretted the accounts for 1922-24 were not yet ready and, explaining the reasons for the delay, said he hoped that they would be ready without fail by the next meeting.

Defaulter. The present position was explained by the Chairman. Mr. Lake then proposed and Mr. Fowke seconded "That the Secretary U. P. A. S. I. be asked to transfer the case of the defaulter to another vakil" This was carried.

Hassan Cemetery. It was resolved that the Rev. Slater of the Wesleyan Mission, Hassan, be asked to choose in consultation with Mr. Rutherford and in conjunction with the Hassan Municipal authorities, a site for the new cemetery.

Publication of Minutes. The Chairman detailed to the Meeting the facts of this matter and explained what action the E. C. had decided upon. It was resolved that in future the minutes of meetings should be sent for publication to the "Planters' Chronicle" only.

Hassan Goods Shed. The Secretary was instructed to send Messrs Bayley & Brock's quotations for insurance of the shed to the E. C. for its decision.

Coffee Experimental Station. The decision of the Executive Committee that the cess for the U. P. A. S. I. year ending 31-3-25 be collected was confirmed.

Transfers from the Nilgiri Planters' Association. These were confirmed.

Roads. Mr. Godfrey drew the attention of the meeting to the disgraceful condition of the Kadur—Chikmagalur—Mudigere—Kotigahar—Boond Ghat road. He said that this road, the one outlet of the District upon which they were dependent for everything was rapidly becoming, if it had not already become, absolutely impassable: this despite constant representations to Government during a period of 30 years. He therefore wished our Representatives in the Legislative Council and Representative Assembly to take the most drastic steps possible to force the matter on the attention of Government.

The method proposed was strongly supported and as strongly opposed as inexpedient by many members: Messrs R. O. Oliver, F. I. Morgan, P. Hunt and others supporting while the Chairman, Col. Crawford, Messrs Lake, Rutherford and others opposing.

The discussion was postponed and taken up again later in the meeting when finally the following resolution proposed by Mr. Godfrey, and seconded by Mr. Morgan, "That in order to draw attention to the fact that, despite representations during the past 30 years, the Kadur—Chikmagalur—Mudigere—Kotigahar—Boond Ghat road, is still left in a condition that is quite unequal to its vital importance, our Representatives on the Legislative Council and Representative Assembly at the Budget Meeting approach the other Representatives from the Kadur District with a view to co-operation in trying to obtain adequate consideration of and provision for the repair and upkeep of this road by Government," was carried unanimously.

The Report was then adopted.

Chairman's Address. "Gentlemen, we have now completed our first year as an amalgamated Association for the whole of Mysore and I feel sure you will all agree that, far from having any reason to regret the change, we have every reason to congratulate ourselves upon it. This is due of course to the interest and co-operation of the majority of members: they have made the enlarged Association a live body and given it a fair start on its career. The year has not been marked by any outstanding achievement but, as you will realise from the Executive Committee's Reports, a very considerable amount of useful spade work has been done. With the exception of two members of the Nilgiri Planters' Association who were formerly members of this Association and who now wish to re-transfer to us, I regret to say that we are not to have any increase in the coming year by properties at present standing out joining us, but, on the other hand, I am very glad to say that no estates are resigning although many joined conditionally for the one year, and this in spite of the new Labour Department scheme which will mean increased subscriptions to the great majority. I think this sufficiently answers the remaining critics, if any there be, of our amalgamation.

The Labour Department is now on an entirely new basis and the control of it rests with groups of District Associations. We therefore have the opportunity of running the Divisions in which we are concerned very much as we wish and it is one of which we should make the utmost. The new scheme seems very satisfactory and the support that this Association has given it is far greater than was expected. We are all glad to see the last of the fee system and have every hope that the Labour Department question has been solved.

The attendance at meetings, after the first one in June, has been good though there have been certain persistent absentees. As normally there will be but four meetings a year there should be little to prevent any member from coming to them. The usual reason given for not attending is estate work, but it is arguable that meetings, boring though they may be, are a form of estate work. I should like to suggest to owners that they might give their managers a hint that Association interests need attention as much as field work. Your Executive which carries on the business of the Association from day to day naturally likes to have all possible support at general meetings. You will have noted that the agenda contains a long list of reports from various representatives on outside bodies. Instances have come to light in the past of representatives accepting such duties but failing to carry them out with due regard to the Association's interests. Further several of the bodies in question have recently become of greater importance and we can no longer afford to be out of touch with their activities. It is not expected that some of those mentioned for reports to-day will have much to say, but it is thought that this first Annual General Meeting of the enlarged Association would be a good opportunity to establish a precedent, the technical right of the Association to such reports and personal touch with those representing us elsewhere.

In one direction I think we might and should do more than we are doing and it is in that of the South Indian Planters' Benevolent Fund. There can be no question as to the desirability and utility of this Fund. I should like to see every member and every estate subscribing and I appeal to you to do what you can to help it.

There are two other matters I should like to touch on. One is the desire of the Coorg Planters' Association for closer co-operation with us and all I need say is that we welcome and reciprocate it. Undoubtedly we should do all we can to foster this for our mutual benefit. The other matter I wish to record without comment at present. It is the apparent imminence of the introduction on a large scale of tea in place of coffee in North Mysore. It cannot but have considerable effect on us.

It is a pleasant convention for a Chairman's Address to conclude with expressions of thanks to all and sundry. In this particular instance I am fortunate to be able to say with truth that I am not merely following the convention. I offer you all my sincere thanks for the way you have treated me as your Chairman and for the pleasant year you have given me. My thanks are due to the members of the Executive Committee who have always been most ungrudging in their work and help and to our Secretary who has put in an extraordinary amount of keen and hard work: I am exceedingly glad that Mr. de Weck is to carry it on after all.

These however are mere personal considerations, and, in laying my resignation before you, what I should like to emphasise is that, thanks to the keenness of the Executive Committee members and other office bearers, of the Secretary and of members in general I believe that our Association has fully justified itself and is now in the way to become a far greater power for good than the former three separate ones could ever have done".

Election of Members The Secretary explained that owing to the wording of the Articles of Association it was impossible for Messrs. A. J. Saldanha & Sons, and Messrs. Peirce, Leslie & Co., to be elected as Personal Members. As these firms however wish to keep in touch with the Association Mr. J. Z. Saldanha and Mr. C. Howison of Messrs. Peirce, Leslie & Co., wished to be elected Personal Members.

Therefore Mr. de Weck proposed and Mr. Fowke seconded "That Mr J. Z. Saldanha be elected a Personal Member Carried unanimously.

Mr. de Weck proposed and Mr. Poyser seconded "That Mr. C. Howison be elected a Personal Member" Carried unanimously.

Mr. de Weck proposed and Mr. Morgan seconded "That Mr. F. M. Hamilton be elected a Personal Member" Carried unanimously.

Accounts. The Chairman explained that the accounts, as presented to the meeting, were not necessarily in their final form and that they would have to be audited before being passed at the next meeting. The Secretary then answered various questions and explained certain items in the accounts.

The Budget for 1925-26. The Budget was gone through and omission of the subscription to the Mysore Chamber of Commerce agreed to. It was explained that definite sanction for the rate of subscription and for expenditure was being asked for. The Budget was then passed.

Election of an Auditor for 1925-26. The present auditor, Mr. D. Mahabala Rao, was re-elected.

Report of the Delegate to the U. P. A. S. I., General Committee Meeting and Extraordinary General Meeting on 25-3-25.

Gentlemen,

I represented our Association at an Extraordinary General Meeting of the U. P. A. S. I. and a Meeting of the General Committee held at Ootacamund on the 25th March 1925. As a Control Committee member I attended a meeting of the Labour Department Divisional Control Committee held at Ootacamund on the 26th March.

At the Extraordinary General Meeting the only subject to be considered was additions and alterations to the Articles of Association. The Secretary read out the 9 Articles to be altered and all were passed by the meeting.

At the General Committee Meeting there were four subjects on the Agenda.

- (1) To confirm the proceedings of the last meeting
- (2) The Budget 1925—26
- (3) Rules of the Upasi Buying Agency
- (4) Labour Department, The Anamalais Scheme.

(1) The Proceedings of the last meeting were read and passed.

(2) The Budget as discussed differed slightly in a few figures from that accepted by the Executive Committee at a meeting held on the 26th January. This was explained by the Secretary when it was put to the meeting and passed unanimously.

(3) Buying Agency. The Executive Committee's proposal that the following additions to the Rules be adopted was carried,

(a) That the following words be added to Rule 4 :—" and all renewals shall date from the expiry of the previous ticket, in no case shall any allowance be made for absence on leave or any ticket be issued for a period of less than twelve months "

(b) That a new Rule be added as follows :—" In no case shall the Secretary act as agent of a member in any business connected with the Agency,"

(4) Labour Department, Anamalais Scheme The Central Travancore Planters' Association's representative moved that the following alterations be made in the report of the Select Committee as adopted at the last meeting.

Para 5—" In the case of Tea the subsidy shall be a minium of 10½ annas per acre."

Para 8—" That, subject to the managng powers conferred on the Executive Committee by the Articles of Associations " be substituted for "subject to general supervision etc."

Para 9—That Control Committees shall consist of three active members and three members in waiting.

Para 12—That power of the Control Committee shall be subject to the Executive Committee as in para 8.

Para 13—That " after the Budget has been approved by the General Committee " shall be substituted for "after the budget has been passed "

Para 27—That the word " entirely " shall be omitted.

Para 30—The whole para to be omitted as unnecessary.

There was a certain amount of opposition and after some discussion para by para was put to the Meeting and carried—all except para 30 which was withdrawn by the mover.

Mr. Lake asked whether any action had been taken in regard to the Mangalore and Mysore Divisions taking up recruiting as the Executive Committee had decided to move that they should do. Mr. Reed replied in the negative. It was decided that the matter should be taken up at the next meeting of the Control Committee.

A vote of thanks to Mr. Reed for representing the Association was passed.

Report of the Labour Department Control Committee Members and Labour Department. Combined Meeting of the Labour Department Divisional Control Committees. "The only business before the meeting was to consider the Director's proposals regarding the allotment of the subsidy which will be received from the U. P. A. S. I. The representative from the Anamalais proposed that the money be divided according to the cooly census which would give the Coimbatore Division 24% Mangalore 21½ Mysore 11, Pallamcottah 22½ and Srivilliputtur 21. After discussion it was found that some Districts would be at a great disadvantage, so the Anamalais representative agreed to withdraw his resolution. The Director's suggestion that the subsidy be equally divided among the Divisions was put to the Meeting and carried unanimously.

On the conclusion of the above each Division held its Control Committee Meeting. The Mangalore Division was represented by Messrs Winterbotham, Mc Dougal, Eyre & Reed.

Mr. Winterbotham was voted to the Chair.

The meeting then took up the question of the Draft Estimate for 1925/26. All the items of expenditure were gone into and the only estimate cut down was that for the clerical staff where a reduction of Rs. 50 per mensem was made. The item of Rs. 400 for Depreciation was questioned. Mr. Winterbotham said he would go into the matter and explain at the next Committee meeting. A copy of the Stock Depreciation Account has since been received. It was decided to hold the next Committee meeting in Mangalore about the end of October next".

It was noted that no Representative of this Association in the Mysore Division Control Committee attended the Control Committee Meeting.

Representation on the Mysore Legislative Council. Government's reply to this Association's letter of 27-10-24 was read to the Meeting. It was decided that the matter need not be carried further and that a copy of this letter be kept in the Minute Book.

Report of the Legislative Council Member. "Mr. Chairman, Gentlemen. I do not propose to take up the time of the meeting by a long statement but I would however ask your indulgence and patience with my shortcomings as you all know that the Reformed Legislative Council has not yet been working for a year, and I, like most of the members, am still a novice and new to the work.

The Budget Session was one of the most important meetings, and I invited the notice of the Council to the fact that there had been a small reduction made in the total amount sanctioned for maintenance of Roads which I thought was an error, as instead of a reduction more funds were needed to improve the existing means of communication.

The Session in which the Coffee Cess Bill came up for consideration was a very interesting one and after considerable debate, I am glad to say the majority of the Non-Official Members were for the introduction of the Bill and a Select Committee has now considered the measure and recommended that it be introduced for the second reading next meeting. The Mysore Legislative Council in the main is similar to the other Legislative bodies in India, and I dare say also to others outside of India, and I am inclined to think as elsewhere useful work can be done by the wellknown method of lobbying, as it is futile to hold up the business of the house with sectional grievances however just they may be, unless they are of a kind to elicit the support of the majority of the members.

I am of opinion that ministers in charge of portfolios are keenly alive to their duties, and are sympathetic and anxious that the departments under their charge should function properly and meet with public approval generally.

There can be no doubt the first step in ventilating a grievance or hardship is to place a concrete case of failure with all details fully described, before the minister in charge and not to take up the time of the Council unless this course fails.

In moving a vote of thanks, which was duly carried, to Col. Crawford, the Chairman thanked him for his report and said he was sure that Col. Crawford's presence in the Council and on the select Committee on the Coffee Cess Bill was of great value to the Association.

Report of Hassan District Board Member.
"Mr. President, Gentlemen.

In asking me to make a report, as Member of the Hassan District Board, you ask rather a difficult matter, as all the representations made to the Board, have been made direct by you to the President of the Board, and the opinions of the Board has been conveyed to you direct, or through the medium of the Mysore Gazette, in which the Board's proceedings are published after each meeting.

I may say that I have endeavoured to forward your interests in every way, and in this I have been ably backed by another of your members, viz, Mr. Sheshaiya, who is also a member of the Hassan Board.

Your main representations have been on the question of Roads. You asked for an increased grant, and this was granted as far as possible. Your requests and suggestions on the question of Hospitals and Medical matters, are being met as early as possible, but you must not forget that it is all a question of funds, and these are hard to find. You must consider that pretty well every subject brought up at a Board Meeting concerns us in some way or other: I mean that the welfare of our community is so closely allied to all the numerous affairs that go to make for Local Self Government, that the report of meetings, and the yearly administration Report of Board which I have handed to your Secretary is really the report you call on me for.

You cannot with the growing importance of Boards and their increased powers, confine your member solely to such subjects as you put up, as in my opinion if you do, or he takes no interest in all the affairs of Board, you turn him into a unit by himself, and he might just as well not be there; especially with a Board constituted as that of Hassan, with a non-official President and Vice-President, who are hard honorary workers themselves, and so insist that all members shall work for the benefit of the whole District, and not just for their own interests. This combination has led to a more thorough understanding of our interests, and also to the success, which the Board under its non-official regime has obtained with all communities, which in our own case, has almost amounted to a real liason between the two bodies; which I personally hope will be further consolidated in the future to the benefit of the whole District.

I have been pleasantly struck with the friendly feeling evinced towards our community by the Hassan Board, and the realization that we are all working for the common good. It is note worthy that the President and Vice President as well as certain Members, have taken the initiative in several matters that they thought would benefit us, such as for instance bringing pressure to bear on Government to push on the repairs to roads down the Ghat, damaged in rains and insisting that we should be kept informed early, so as to enable us to know how we stood to mention one instance only.

I have also pleasant recollections of our Association, being honoured through our President, at the opening of a new District Board Chatram in Hassan, the wish for so doing being spontaneous, as he had always by his acts shown that he was one with them.

I may have been wrong in the method I have adopted in representing you, but I only took up this method with the sole idea of doing my best for you, and not with any idea of constituting myself

as a "Free Lance" as my absence at your meetings may have led you to suppose. This absence has been for quite other reasons, and I have tried to make up for it in a small way ; by as far as possible keeping your President and Secretary informed of all that passes on the Board, and I would like to thank the former for the way he has always helped me in any matter on which I had doubts as to the line of action best to take.

I have attended all the Board Meetings, some of which I may say ran into two days affairs, and have also the honour of having been elected on several Committees."

The Chairman shanked Mr. Rutherford heartily for his interesting Report and said that he was sure that the latter was perfectly right in what he had said as so taking an interest in all the Board's activities. Mr. Rutherford had a unique position on the Board and the very friendly relations he had fostered, of which the Chairman had had a very pleasant experience, were of great benefit to us : our gratitude was due to Mr. Rutherford and he proposed a vote of thanks to him for his work on the Board. This was carried.

Report of the Kadur District Board Member.

" Gentlemen,

I have received no instructions from the Association to put any particular subject before the District Board most of the subjects discussed at Board Meetings are of no general interest to Planters. The only thing of importance that affects us is the Railway from Kadur to Chikmagalur. I am glad to say this is receiving the attention of the District Board and if Government will guarantee the loan required it will not be long before work begins in earnest. Roads have had particular attention this year and a sub-Committee (of which I was a member) was appointed to go into the question of upkeep. The Sub-Committee came to the conclusion that the allotment per mile must be considerably increased if the roads were to be maintained in good order. I hope the increased allotment will be sanctioned this year. Gentlemen I thank you for having elected me to represent you on to District Board and I now tender my resignation."

A vote of thanks to Mr. Reed for his representation was recorded.

Election of a new Member. Owing to the resignation of Mr. Reed it was found necessary to elect a new member.

Mr. Dennis, proposed by Mr. Oliver, seconded by Mr. Poyser, was elected.

Report of the Sanderson Memorial Ward Governing Body Member.

Mr. Godfrey said that the proceedings of the Annual General Meeting had been sent to the Secretary. He hoped that the erection of the wall, which had been voted at a previous meeting as long as six years ago, would be carried out soon. He also said that perhaps the subscription of Rs. 150 which the Association was making annually would not be needed this year.

Report of the Board of Agriculture Member. Mr. Lake said there was nothing to report as the subjects before the board had not been of interest to the Association. The only subject of interest, namely the Coffee Experimental Station had passed out of the hands of the Board into those of the Legislative Council. He then tendered his resignation which was accepted. A vote of thanks to Mr. Lake for his representation was recorded.

Owing to Mr. Lake's resignation it was necessary to elect a new representative. Mr. P. Hunt, proposed by Mr. Fowke and seconded by Mr. Dennis, was elected.

Report of the A. F. (I) Advisory Committee Members—Neither Major Couchman nor Mr. English were present and no report was presented.

Criminal Procedure Code in Mysore. The Confidential Letter from Government in this matter, which had been circulated to all members, was fully discussed and the Secretary was instructed how to reply.

Confirmation of New Rule. The new rule formulated by the Executive Committee which read, "That any member proceeding on long leave in or out of India shall appoint in writing another member of the Association to represent him and such written authority shall be sent by the first member to the Secretary of the Association" was read to the meeting. To which rule the Chairman proposed an amendment to read "That any member leaving the Hassan, Kadur or Mysore Districts for longer than 3 months shall appoint in writing another member of the Association to represent him in the Association during his absence, and such written authority shall be sent to the Secretary prior to the first member's departure." This was put to the meeting and carried.

Birthday Session of the Representative Assembly. Mr. St. John Hunt our Representative was unable to be present, but there were no subjects to be brought up.

Election of Office Bearers for 1925-26. Major Hill said that at the risk of being told "nobody asked you" he wished to say that he was not standing for re-election to any office.

The voting was then proceeded with and resulted as follows:—

Chairman:—Mr. Godfrey was unable to undertake the work and Mr. Fowke was then elected.

Executive Committee. Member for South Mysore, Mr. Lake having resigned on proceeding to England, Mr. St. John Hunt.

Member for North Mysore, Mr. W. H. Peed having resigned, Mr E. L. Poyser.

Member for Babadudin, Mr. G. R. Oliver having resigned on proceeding to England, Mr. C. H. Godfrey.

Member-in-Waiting for South Mysore Mr. P. Hunt
 North Mysore Mr. F. I. Morgan
 Bababudins Mr. S. H. Dennis.

Election of U. P. A. S. I. Representatives for 1925-26. Messrs. Godfrey and Fowke were elected.

Act XIII of 1859. A letter received from the Coorg Planters' Association asking for suggestion from this Association in the matter of the impending repeal of Act XIII of 1859 and consequent necessity of drawing up an alternative Act. After some discussion on this subject Mr. Lake, seconded by Mr. R. O. Oliver, put forward a resolution in the following terms "That, in view of the impending withdrawal of Act XIII of 1859 in British India and in the State of Mysore, Our Member on the Legislative Council be asked to discuss with the Executive Committee of this Association and the Coorg Planters' Association a bill to be submitted to the Coorg Council to take the place of Act XIII of 1859". This was carried.

The Chairman then proposed a hearty vote of thanks to the President and Members of the Kadur Club for their kind permission to the Association to hold meetings during the year at the Club.

He said it had been a great convenience and was greatly appreciated by all members of the Association.

Major Hill then vacated the Chair in favour of Mr. Fowke.

Date of Next Meeting. It was decided to hold the next meeting on Monday 29th June.

Mr. Godfrey rose to propose a vote of thanks to the retiring Chairman. He said the year had been an exceptional one and it was largely owing to the efforts of the Chairman that the Amalgamation had been so successfully carried out.

Major Hill had been untiring in his efforts to make the affairs of the Association run smoothly and with considerable success. He wished therefore to express his own regret and also the regret of the Association at his resignation.

Major Hill thanked Mr. Godfrey and members for their kindness and said that if they were satisfied that the amalgamation was firmly established he was amply rewarded.

The meeting then ended.

Chairman. A. L. Hill.

Chairman-Elect. E. W. Fowke.

Secretary. M. A. De Weck.

Papers on the table. Letter and papers from the Superintendent, Kerala Soap Institute.

Report on the administration of District Funds in the Hassan District for the year 1924-25.

COVER CROPS.

Their use in Cultivation

LECTURE BY MR. R. M. RICHARDS, M.B.E., A.R. C.Sc., F.C.G.

(Continued from last week).

(V). The Cover Crops Advocated for Use in This Country.

There are many cover plants in use in this country and in other parts of the tropics.

Various species of the shrubby forms—*Tephrosia* spp., *Crotalaria* spp., *Indigofera* spp., *Cassia* sp., *Clitoria* sp.,—need not be considered. They are not advocated for general use. Non-leguminous plants such as *Mikania Scandous*, are also not advocated.

Centrosema plumieri is thought unsatisfactory because it is not a strong plant and weeds grow up through the cover under all conditions. Unless it is very carefully watched other undesirable plants outgrow and smother it.

The fact that one leguminous plant is highly successful and recommended in one locality does not mean that it will be successful in others. It is best to try several before extensive plantings are made.

The characters of the plant required are as follows:—

- (i) Belonging to the family Leguminosae.
- (ii) A perennial plant and not an annual.
- (iii) A plant with a twining habit. Such plants creep and root at the nodes in open spaces, but when crowded their natural habit is to inter-twine or twine round any other plants and smother them.
- (iv) A heavy seeding plant.
- (v) Plants which grow best in the open.
- (vi) Plants which grow under shade.

The Plants which I recommend for this country on the coastal alluvial clays and the yellow hill soils are:—

1. *Mimosa Invisa*.
2. *Calopogonium muconoides*
3. *Vigna oligosperma*.
4. *Centrosema pubescens*.
5. *Phaseolus adenanthus*.

Incidentally I have placed them in the order in which I consider lies their merit. There are certain conditions incidental to the use of each of these plants which require separate consideration.

1. *Mimosa invisa*.

There is one objection to this plant—the only one I know or admit—in that it has prickles which make coolies dislike it. The prickles are known to cause ulcers.

It is the best of the fast growing covers and it is the most easily controlled. With proper care and a knowledge of requirements, two factors always essential in any agricultural undertaking, anything may be done with this cover.

By careful treatment it can be made to smother lalang. It had been condemned, and I rather think that the majority of planters in Malaya condemn it, because lalang has outgrown *Mimosa* and has cost several small fortunes to remove. Such results obtain because the habit of the plant is not understood or because the soil is too poor, or because the plant has been left to itself and not looked after, or as a result of carelessness.

The plant is an annual and therefore, under natural conditions, fruits, sheds its seed and dies each year. By special methods it can be made to change this habit and be made to perenniate. By periodical rolling or beating, the time varying with locality, type of soil and season, and preventing the plants from forming seed, the perennial habit results. It is only by this means that lalang may be smothered by *Mimosa*. If the leguminous plant is left to fight with lalang unaided, the latter will supersede it.

It is advantageous to sow seed in roughly changkolled lines, not more than three feet apart. It is better to make these lines too close than too far apart. Not too many seeds should be sown in the lines.

In lallang, and I refer to the heaviest of lallang, small changkolled patches about 5 or 6 feet by the same distance apart (forming squares) should be made in which the seeds may be sown. In good land *Mimosa* will outgrow lallang in a year.

When the *Mimosa* plants grow at first growth is upright and the plants intertwine. The cover then has a bushy appearance. When a height of about three feet is reached the individual plants bend over & outwards and spread over the ground. If it is considered undesirable to cover the whole area, the cover may be turned back with a stick; it will remain where it is placed. It is true they will find their way outwards again in time, when the process applied with the stick may be repeated. When the plant is rolled or beaten down (I prefer beating) it is only from the ends of the shoots that growth upwards and outwards begins again.

Mimosa does not grow well in shade. It will not grow in wet land. Where water lies on the surface of clay, shallow drains (called surface drains or drills) should first be made. The cover is specially recommended for Coconuts and for Immature rubber. It can be

made to grow on the heaviest clay lands. When it is said it cannot be established, in nine cases out of ten the plant has not had a proper chance to grow and the question may be asked, what is the matter with the planter? The solution of the difficulty may be solved by the correct answer.

My personal experience is adequate now to indicate the possibilities of *Mimosa*.

Milsom (16) indicates that the number of seed per pound is about 68,000. Before planting, the seed should be placed in boiling water and allowed to cool. It is advisable to sow the seed in the evening.

2. *Calopogonium Muconoides*.

This is a new cover plant which has the twining habit, is perennial and is a very heavy seed producer.

It is now in full flower at Caledonia (seed sown on the 20th and 21st December) three months after sowing. The cover will not grow under shade. It can therefore only be grown in the open. I believe it would grow well under Coconuts, especially after the 6th and 7th years, anywhere and on any soil. The seed may be broadcasted on changkolled land, but I think better results have been obtained by me by showing the rows about two feet apart. I find it advisable to plant the seeds fairly thickly, though I have been told that that is quite unnecessary.

On heavy clay (changkolled) land I have a dense cover in three months. A crowded dense intertwining mass is produced in which it is quite impossible for any other weed plants to survive. At the edges of the covered areas the plants spread outwards and root at each node opposite the point of origin of the leaves.

It is advisable to soak the seed before sowing in hot water (just too warm to be comfortable when the hand is immersed) for two hours. This is not necessary; but germination is encouraged thereby. The seed should be sown in the evening. I find the seed number some 33,000 to the pound.

For open clearings in Rubber the cover is strongly recommended. The use of the cover plant should form an economical and efficient means of upkeeping any young plantation. The rapidity with which it grows; the ease with which it may be established; and the density of the cover which it forms when established—form the reasons why I advise the use of *Calopogonium*. With the exception of *Mimosa* it is the strongest cover known to me,

When the Rubber trees shade the ground *Calopogonium* will die out. *Vigna oligosperma* should grow well in any land where the former cover has been grown for some time. *Vigna* is a slow grower

16. J. N. Milson, "Cover Plants" in Malaya.

and causes much more expense in upkeep than the dense growth of *Calopogonium*.

3. *Vigna Oligosperma*

To the Rubber planter this plant forms the most valuable cover, for it grows well in dense shade. In Sumatra it is well established everywhere under *Hevea* and there is no question of its efficiency.

In the heaviest clay lands of the Coastal districts, on the washed clay soils of the flat lands and on the washed hilly lands of the F.M.S. it is difficult to establish the cover. It grows profusely in loose porous soil or in lands where no wash has taken place or where a mulch has been allowed to accumulate. On our coastal alluvial clays in grown rubber it should be encouraged to grow on the excavated earth thrown up in making the necessary shallow surface drains. Its establishment requires patience and in initial stages it may cause considerable expense. It is not advised where weeds grow in profusion in open land. Like *Centrosema plumieri* it will be choked by the growth of weeds or its upkeep will be too expensive. Rapid planting by means of cuttings in perfectly clean open land may be made successful, but I should still fear that upkeep costs would be much higher than in the case of *Calopogonium*, which can look after itself.

On hilly lands where contour drains have been made *Vigna* is a useful cover to plant on the excavated earth. The plant was for a long time known in this country as *Dolichos Hosei*, but it is only since the Dutch planter found it so successful that we have thought it might be eminently suitable in Malaya. Planting from seed is difficult and expensive because of the paucity of the seeds. Cuttings are easily made and easily planted. In my opinion it is not the best cover for Coconuts. I prefer a much denser cover which will form a greater mulch and a greater quantity of humus material.

4. *Centrosema Pubescens*.

Like *Calopogonium muconoides*, this plant has a twining habit and the effect on weeds is much the same. It is a much stronger plant than *Centrosema plumieri*. The cover may be used as in the case of *Calopogonium*, but I prefer the latter. *Milsum* gives the number of seed to the pound as about 16,000.

5. *Phaseolus Adenanthus*.

This plant has been found as an "escape" on the railway embankment. Its near relative *Phaseolus vulgaris* is very much favoured in the Philippine Islands. The plant is perennial with firmer leaves than the cultivated species (scarlet runner). It also has the twining habit as distinct from the more suberect habit of *P. vulgaris*.

The plant is a cosmopolitan species in the tropics and should make a most useful cover. It is possible that it will grow in partial shade, though dense shade will kill it.

Some planters either in this country or elsewhere have had success with other covers than the five considered above. Species is *Mucuna* are said to grow well under Coconuts, but I have as little faith in the large leafed climbers as I have in the shrubby types of leguminous plants for use under Rubber and Coconuts.

Finally the question suggests itself—is it economical to grow cover plants? General experience in this country would provide the answer that clean weeding is much more economical. Is that the correct answer? What is the value of general experience in Malaya in formulating the reply that clean weeding is cheaper than the other method? There has been so little sound experience in the use of effective cover plants that I fear the general opinion is biased in favour of an adopted method when there is very little knowledge of the one which has not found favour.

There may be other views. I consider that the other views require careful examination. Also I think that a strict comparison between upkeep costs under clean weeding and under "unweeded" *Calopogonium* (for example) is an unknown quantity. It has yet to be shown that clean weeding is the cheapest method.

One finds among many such, a statement to this effect—"It is doubtful, however, whether cover crops do ever effect any saving in weeding costs, because as far as general experience goes with regard to actual costs, clean weeding cannot be equalled for cheapness". On the other hand there are experienced men who write—"Almost anyone can make a profit growing Coconuts but, other things being equal, the planter who employs cover crops is practically sure to win out ahead of his neighbour who either follows the reprehensive *laissez faire* plan of letting the weeds and grass grow as they will or who tries at unnecessary expense to keep the inter-spaces clean."

Which of these two has found the solution? Which is the correct view? Personally I would not accept the former because there has been no real experience in the use of covers. But each planter can answer the riddle in his own way after he has given trial to effective leguminous crops.

The proper management of cover plants is an art only learnt by experience. If in this article I have encouraged anyone to gain that experience to the fullest extent I have served the purpose which I had in view.

After the lecture at the invitation of the lecturer a number of questions were asked and answered by Mr. Richards, who in the course of the discussion ably disposed of the fallacy that earth excavated from contour drains should be placed on their lower side.

The Meeting closed with a very hearty vote of thanks to the lecturer.—*The Malayan Tin and Rubber Journal*.

BANGALORE—CENTRAL HOTEL, 'The Best in the Station'

The Planters' Chronicle

Recognised as the Official Organ of the U. P. H. S. I., Incorporated

Secretary's Registered Telegraphic Address "UPASI," MADRAS.

Mr. EDWIN VINCENT.—Managing Editor, Coimbatore,

Telegraphic Address:—"CHRONICLE," Coimbatore.

VOL. XX No. 22]

MAY 30TH 1925.

[PRICE AS. 8.

CONTENTS.

	PAGE.		PAGE.
Rainfall in the Planting Districts ...	351	Labour and Emigration ...	356
District Notes ...	352	Some Botanical Problems of Cacao ...	358
Mundakayam Planters' Association ...	353	Rainfall in the Planting Districts ...	362

PRICE OF "A" COFFEE.

BY CABLE LONDON, 29th May, 1925.

141s.—per cwt. Market Quiet.

RAINFALL IN THE PLANTING DISTRICTS.

As will be seen elsewhere we are this week recommencing publication of Rainfall figures in the Planting Districts. Stamped post cards have been sent to most of those Honorary Secretaries of District Associations who furnished figures last year and we would like to make an appeal to them this year to send their cards in promptly showing the rainfall for each successive week. If this is posted on Monday it should reach us in good time for inclusion in the following week's issue.

We had intended making comparison with last year but going over the figures in Vol. XIX we find that in 1924 we began publication only in July of the June figures and subsequently the figures from 1st January to 31st May were lumped together. This year we propose publishing, as will be seen, the figures from 1st April. It will not be till next month therefore that comparison can be made, but the figures will not suffer from this as it is really only the monsoon and subsequent figures which stood out so prominently last year. It will be noticed there are a lot of vacant spaces in the columns and we trust we shall be in a position to remedy this defect in our next issue.

DISTRICT NOTES.

Shevaroy Hills.

There is very little to write about this month, more especially as we are all merry making, and your correspondent too, with the result that there is very little time for anything else

Social. The "Season" is in full swing and I don't think Yercaud has ever had so many visitors in its history. This reminds me of the American who was asked why he came all the way to Yercaud from Calcutta, when there were so many Hill Stations near that City. "Waal" said the American "I have a friend in Cal-cutta and he said 'Cross, you've got to go to Yer-caud, you've just got to go' and I said why have I got to go to Yer-caud. Waal said he 'Yer-caud is that healthy they had to kill a man to start a ceminty there' I don't think Yercaud is quite up to that standard, at least not this year.

Mrs. W. Rahm was "At Home" to the whole Station on the 6th and Mesdames F. Short, Butler and Gaitskell on the 16th. There was a Military whist Drive at the Victoria Rooms on the 20th, the tables being named after the various Estates, and it was such good fun that by special request there is to be another shortly. On the 5th and 6th of next month Mr. and Mrs. G. D' Silva are staging "Pocohontas", which promises to be well worth seeing and I hear several people from Salem are going to make a point of coming up for the occasion.

Epidemics. Chicken-pox has been with us since February last and fresh cases are constantly occurring. Amongst the Europeans, it started in the convent, soon after the girls returned to School from the plains after the Holidays, which gives credence to the rumour that it was introduced to these Hills then. How any parents can be so absolutely selfish as to send their children back to school after suffering from a contagious disease, before the period of infection has expired, just for the sake of avoiding the loss of a weeks schooling, is beyond comprehension. Abdominal troubles seem to be the order of the day just now, owing probably to the drinking water having become contaminated after the heavy rain.

Weather. Up to the 16th instant as much as 13 inches of rain have been registered in places for the month of May, 6 inches of which fell in one week. Though we generally get more rain in May than in June, such heavy falls are very unusual. Of course the storm reported in the Bay was responsible but the wind on 2 occasions came up from the S. W.

Coffee. The young berries are now swelling but it is remarkable that although most Estates had practically only one blossom the berries in the same clusters vary from the size of a large pin head to a pea, even where a satisfactory setting is quite evident. Prices for Parchment are now round about Rs. 18 to 19 per struck bushel.

Pests. Green Bug was getting a hold at the beginning of the month but seems to have received a severe check from the wet weather.

Mysore Notes.

This month of May been a rather dull one for those remaining on estates. There seems to be a general exodus of Home-goers among whom are included Mr and Mrs. Lake, Messrs. G. R. Oliver and E. H. Young soon to be followed by Mr. and Mrs. Denne, Mr. H. H. English and, I believe, others. Added to this many have taken advantage of the slack season to go for a short holiday to the hills and other cheery places.

For the first fortnight of May we have enjoyed (?) thunderstorms nearly every evening, one day registering over two inches. This rain has brought on a very fine flush of new wood and estates are looking very well. Cardamoms are flourishing under this treatment but I am afraid that this continual rain, coming as it has so soon after the opening of the blossom, has done a great deal of harm so that crops, already estimated on most estates as small, will turn out even smaller than at first estimated. There is one place that looks well and has responded to the weather, that is the Wartyhully Golf course. The Turf (?) grass is much thicker than last year so that, given a fair monsoon and not deluge, it ought to improve still more. There are rumours that some men from Coorg will compete at our Annual Tournament. It is to be hoped that these rumours are true for the "Men of Coorg" will be very welcome and no doubt Mysoreans, though few in number, will do their best to give them a good game.

MUNDAKAYAM PLANTERS' ASSOCIATION. (INC.)

Proceedings of the Twentieth Annual General Meeting held at the Mundakayam Club on *Saturday 9th May at 2-30 p. m.*

Present :—Messrs. G. McPherson (Chairman) R. Harley, O. J. Eagan-Wyer, J. S. P. Symons, F. Hawkings, A. D. Vincent, J. C. M. Caruth, A. Champion, E. J. Thom, J. R. Vincent and M. S. Calderwood (Hon. Secretary).

Visitor Mr. Edwin Vincent.

The Hon. Secretary read the notice calling the Meeting and the Report of the Auditor.

The Chairman said :—"Gentlemen, the Report of the Committee of Management* and the Statement of Accounts having been in your hands for the past fortnight, I shall, with your permission, take them as read. You will, I think, agree that we have had a very successful and progressive year, and I have no hesitation in assuring you of the very great pleasure it has given me to preside over the Association for the past fifteen months. In reviewing this period, we can congratulate ourselves, both on our registration as an Incorporated Association and on the flourishing condition of the Association's affairs, to which all have lent a hand.

* Appeared in our last issue

It is not my intention to follow precedent by endeavouring to review the conditions that have obtained in our Industries for the past year ; with those you are well acquainted, and I can add nothing profitable to your knowledge. But I should like to take this opportunity of mentioning the work of our Rubber Mycologist. Many improvements which we are now putting into effect, and from which we hope greatly to benefit, have been the result of his labours to assist us. I need mention only one of these, the spraying of the trees to prevent secondary leaf-fall, which has already been proved so successful that its wholesale adoption in the near future is assured.

We congratulate Mr. Ashplant on the publication by the Rubber Growers' Association in London, of the review of "Recent Developments in the Rubber Planting Industry." He is leaving us for a well earned furlough, and I am sure you will all join me in wishing him a very enjoyable holiday. (Applause.)

You will all be glad to know that since our report went to print, I have learned that our Nominee for the Planting Seat in the Travancore Legislative Council, Mr. J. B. Cook, has been elected. We are fortunate to have gained so able a Representative.

I should like to draw your attention to Mr. J. R. Vincent's report of the Sri Mulam Popular Asser.bly which is tabled, together with the minutes of the Road Repairs Conference with the Dewan ; and I would propose a very hearty vote of thanks to Mr. Vincent for the time and trouble he took in attending this meeting. (Applause).

In conclusion, I have to express my warm thanks to the Committee of Management for the way in which they have helped me to discharge the work of the Association. I am new to work of this kind, but it has been made very easy by their keen interest and assistance. Especially would I mention our Hon. Secretary for the efficient and hard working manner in which he has carried out his duties ; he has had all the spade work to do and it has been no easy job at times, as I well know. The Association are fortunate in having had his services throughout such a busy period."

The Chairman then asked for any questions and having dealt with them moved the adoption of the Report and Accounts for the fifteen months ending 31st March 1925. Mr. J. R. Vincent seconded and they were unanimously adopted.

Special Business.

1. *Budget 1925-22*:—Copies of a draft were tabled at the meeting. The Chairman explained the increases asked in one or two items and there being no queries Mr. E. J. Thom moved "that the Budget for 1925-26 as set out in statement dated 9th May be and is hereby approved and adopted." Seconded by Mr. J. R. Vincent and carried unanimously.

2. *Indian Tea Association Journal*:—The Hon. Secretary was instructed to write to Managers and inform them of the reduction in the amount asked for, as subscription to this journal.

3. *Southern India Planters' Benevolent Fund*.—Considerable discussion ensued on this subject. Mr. J. R. Vincent strongly appealed to Estates to contribute and suggested that the Fund be asked to add such subscriptions to Capital so that its reserve should be steadily increased.

Mr. Harley, whilst warmly supporting the appeal to Estates to subscribe disagreed with the idea of adding such subscription to Capital. He was of opinion that to have a large income earning capital collected thus, was merely to relieve posterity of its obligations and responsibilities.

Mr. Vincent said that if there were need of this money—if it could be spent to advantage yearly—he would be the last to attempt to earmark it as a reserve. The Hon. Secretary thought there would be no difficulty in that respect and Mr. Edwin Vincent pointed out that what the Secretary of the Fund was anxious to obtain was a regular clientele of subscribers giving him an assured yearly income on which he could depend.

Finally Mr. J. R. Vincent proposed.

"That the Hon. Secretary write to managers of Estates in this district drawing their attention to the paragraph in the Report of the Committee of Management regarding the subscriptions of Estates to the Planter's Benevolent Fund, and to request them to get their Principals to subscribe on behalf of their Estates".

Seconded by Mr. E. J. Thom and carried unanimously.

Ordinary business. The Chairman placed the entire resignations of the Committee of Management in the hands of the meeting.

The retiring Chairman and Hon. Secretary were unanimously re-elected and the ballot for the Committee resulted in the re-election of Messrs. R. Harley and J. R. Vincent and the election of Messrs. J. J. Murphy, Ashton Hamond and C. L. Mclean.

Mr. Vincent moved a very warm vote of thanks to the Chairman and Hon. Secretary for their work during the past year and congratulated the Association as well as them, on their re-appointment. Mr. Harley seconded and the meeting carried the resolution with applause. The Chairman thanked the members for their appreciation and promised to do his best for the Association in the year to come.

Auditor. Mr. Egan-Wyer proposed, Mr. Hawkings seconded and it was resolved. "That Mr. Vadivel Pillay be re-appointed Auditor of the Association for the ensuing year at the same fee and allowance as previously".

The Chairman then declared the meeting closed.

G. McPHERSON,
Chairman.

M. S. CALDERWOOD,
Hon. Secretary.

LABOUR AND EMIGRATION.

The Government of Madras Emigration and Immigration Report for the year 1924 has now been issued over the signature of Mr. R. H. Ellis, I. C. S., Commissioner of Labour, Madras, and makes very interesting reading. It is interesting, not from the point of view of some administration reports which are more of a narrative character, but from the sheer force of its statistics, and from the succession of salient facts concerning the movement of labour with which the report is built up. It is not in fact a literary inspiration so much as a piece of architecture.

Under section 10 of the Indian Emigration Act, Malaya and Ceylon were the only two countries to which emigration of unskilled labourers continued to be lawful. The report therefore follows well-defined lines Part I relating to emigration to Malaya and Part II, emigration to Ceylon, Part III being devoted to return emigrants from Malaya, Ceylon and other places. The first thing to strike one in the report, is the question of wages and the comparisons made. The rates prevailing in the districts that chiefly contributed the exodus to Malaya are given as:—

District.		Men			Women.			Children.		
		Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
Trichinopoly	...	0	7	0	0	4	0	0	2	6
Tanjore	...	0	8	0	0	5	0	0	3	0
Madura	...	0	6	0	0	4	0	0	2	0
North Arcot	...	0	6	6	0	5	0	0	3	0
South Arcot	...	0	6	0	0	4	0	0	2	6
Chittoor	...	0	6	6	0	5	0	0	3	0
Chinglepet	...	0	6	0	0	4	0	0	2	0
Salem	...	0	6	0	0	4	0	0	2	0
Vizagapatam	...	0	6	6	0	3	6	0	2	0

The Commissioner adds the bald statement that "the wages in Malaya vary according to the places. The present wage is about 9 to 12 annas for men and 7 to 10 annas for women. Even children get light work and may earn from 2 to 5 annas daily". This appears to us a rather misleading statement. No mention is made anywhere in the report of the conditions in Malaya and if it can truthfully be said that conditions in Malaya (i. e. the cost of living there) are not the concern of the Commissioner of Labour, then equally truthfully may it be said that this bald comparison of vague Malayan figures with those obtaining in the recruiting areas, is equally not his concern and need find no place in his report. Similarly comparison is made with Ceylon where against the same wage rate in the recruiting areas shown above, it is stated that "the daily wages of an average working man, woman and child in the Ceylon estates are 7½ annas, 4½ annas and 3 annas respectively. It will be thus seen

that the average wages in the colony are less than those in the Tanjore District and not much higher than those prevailing in the other districts'. It appears to have occurred to the Commissioner of Labour that this discrepancy between rates here, rates in Malaya and those in Ceylon, needed some explanation and he adds therefore the inspired sentence which follows:—

"The agricultural labourers of these districts emigrate to the colony because they get steady work on the estates throughout the year, while no such continuous work is available in their own districts". The continuity of work in Ceylon is an undisputable fact, it is equally true of Malaya, of South Indian Estates and industries generally such as the Mills, Mines, etc. Whether the cooly thinks sufficiently deeply to realise this is a moot point. It can hardly be said of the average estate labourer of the depressed classes that his one idea in life is to go where there is continuous work. In another part of the report Mr. Ellis says "No labourer goes to Ceylon with the idea of permanently settling there. They leave their home with the hope of returning after varying periods of stay in the colony". Presumably with more money than they have ever before seen in their lives. Again he says "1924 was a record year in emigration to Ceylon mainly due to the failure of the North East Monsoon of 1923-24 the worst affected being Salem, which contributed over four times its usual quota".

Here then are some of the true reasons why the labourer crosses the water. And the power behind all this? The power that tells the cooly where he can go and earn good wages, returning after a brief period, the power that dangles food and clothing before a famine-stricken population, that organises and directs an army of 22539 license holders (vide Report), that cajoles, nurses and shepherds "His Majesty the cooly" into the "places of accommodation" reserved for him, and pays small village debts; does this power count for nothing when looking for reasons "Why the labourer goes to Ceylon."

A very interesting statement relating to Return Emigrants is attached to the Report. In the case of Ceylon 55452 labourers returned and as pointed out below half of these were holders of recruiting licenses. 570 were assisted, either repatriated by the agent in Ceylon or by the Ceylon Government under their system of Repatriation of Sick and Indigent Indian Emigrants. Nineteen of these were lepers. The report continues—"The repatriates from Ceylon brought no savings with them. Of the large number of labourers returning unassisted about one half were either license holders and their dependents or labourers going to India on a short holiday. These persons brought some money with them. The remainder that were leaving the Colony for good brought very little. Of the 1,082 persons returned from Natal only 266 brought savings, amounting to £13,211; the remaining 816 brought no savings. Seventyone persons returned from Trinidad, of whom 17 brought

savings amounting to Rs. 9,155-13-2 while 54 returned with no savings. From British Guiana 13 persons returned, of whom 5 brought savings of Rs. 7,150 and 8 brought none. None of the persons returned from Jamaica brought any savings with them."

In all 100250 labourers went to Ceylon in 1924-a record-but it will have been noticed that more than half this number returned-48188 went to Malaya and in addition to the number quoted above Ceylon took 53739 non-emigrants.

SOME BOTANICAL PROBLEMS OF CACAO.

BY S. C. HARLAND, D. Sc. (LOND) PROFESSOR OF
BOTANY AND GENETICS, IMPERIAL COLLEGE OF
TROPICAL AGRICULTURE.

It may be wondered why we should publish the following paper, since we, in Southern India, are not interested in Cacao, but we do so, as it throws considerable light on the question of selection for yield, budding and plant breeding generally. The paper was read at a meeting of the Agricultural Society of Trinidad and Tobago in November last and is taken from the Journal of the Society (Vol. XXV Part I).

One of the most striking features of a Cacao plantation is the enormous variation in yield from tree to tree. Of two trees both apparently similar in healthiness and vegetative vigour one will yield a hundred or more pods and the other few or none. A similar situation is characteristic of other tropical tree crops, for example, it has been noted in the East in rubber that 75 per cent of the crop is often being produced by less than 30 per cent of the trees. This means that a large number of trees are not paying for their keep and may be described as 'boarders.' The situation is most nearly analogous to that existing in a commercial herd of dairy cows. As long as the farmer is content to record the amount of milk he receives only in bulk, he cannot take any steps towards improvement, but when he begins to record the individual milk yields he soon discovers that certain cows are not worth keeping and replaces them by better animals. To analyse a little further, the low milk yield of some cows may be due to inadequate nourishment or to disease, but everyone knows that if a cow is inherently a poor yielder, no amount of care and attention will ever affect an improvement. As we say in Yorkshire, "You can't get a quart out of a pint pot."

It is enormously important for the cacao planter to eliminate the poor yielding trees, and to replace them with heavy bearing types. But before we can do this a certain amount of initial study is necessary on the way in which the yield of a Cacao tree is built up. In the first place pods come from flowers, and we have to decide first whether the small yield of pods in some trees is due to a correspond-

ingly small number of flowers. A little study will show that as a rule the number of flowers has very little, if at all, to do with the size of the crop, and it is often the case that the unproductive and barren trees are producing large flushes of flowers but are not setting any pods.

Since mere number of flowers is not of great importance it is clear that a study of the pollination and the setting of fruit in Cacao is an essential preliminary to wider question of how yield is built up. We have carried out an extensive series of experiments at College on the question of pollination and our results may be briefly summarised as follows :—

1. Direct observations by the microscope have shown that only about 5 per cent of flowers ever received any pollen on their stigmas at all and are doomed to pass through their life history without any chance to set fruit.

2. If flowers are hand-pollinated there is a survival of 5 per cent of the flowers on the 10th day, at which time small fruits have developed of 2-3 mm. in diameter. After this period there is practically no further loss by mere shedding, though many fruits fail to reach maturity either through disease or lack of nutrition.

3. The setting percentage of 5 per cent in hand pollinated flowers should be compared with the figure 0.3 per cent in non-pollinated flowers.

4. In flowers attended by ants and aphides, about 2 per cent of setting occurs and we have calculated that efficient pollination takes place in about 35 per cent of flowers attended by ants and aphides.

5. The results of flower examination, involving the recording of the history of nearly 4,500 flowers by my assistant Mr. G. O. Johnson, have established beyond reasonable doubt that either ant or aphides, or both these insects, are responsible for a considerable amount of pollination, and the low percentage of setting on control flowers renders it likely that they constitute the chief pollinating agents at the St. Augustine Experiment Station where our experiments were carried out. It is conceivable that thrips of the flower-inhabiting type (not the injurious species), also play some role, but they were practically absent in our material.

6. Elimination of crawling insects by bands of an adhesive substance demonstrated the presence of another pollination agent probably a night flying insect which efficiently pollinated about 1 per cent of flowers.

We can now proceed a step further. Though the percentage of pollination is small and the percentage of flowers which set fruit seldom rises above 5 per cent it is probable that lack of pollination is never the main cause of a poor crop, for nature provides such an enormous number of flowers that the setting of even one in a thousand would produce a heavy crop. Our experiments in hand-

pollination led us, however, to an important conclusion: In certain trees,—unproductive trees, several hundred flowers were pollinated without a single pod being set, but on other trees,—good bearing trees, a large number of pods could be set at any time by hand-pollination. We have thus arrived at what is probably the main factor distinguishing productive from unproductive trees; the former are good 'setters' and the latter bad 'setters'. It is clear that from the practical point of view the elimination of poor 'setters' is entirely feasible, and the breeding out of a strain of high setting capacity could be done without the slightest difficulty. Certain varieties of cotton for example suffer unduly from the shedding of buds, flowers and young fruits, and it has been possible to isolate strains comparatively free from shedding.

The breeding of a variety or varieties of Cacao of uniformly high productivity offers a few difficulties which merit some discussion. A tree may be regarded as the resultant of the interaction of its hereditary factors plus its environment. There is no such thing as a cacao which breeds true to type, for we have shown by methods which are somewhat too detailed to relate here that cacao is cross-fertilised in Trinidad to the extent of about 30 per cent. There is a kind of tree which occurs sporadically on estates under the name of 'Male Cacao,' which is characterised by complete sterility of the anthers and should therefore be more properly termed 'Female Cacao'. Examination of the stigmas of flowers of such a tree will show that pollen is being conveyed from neighbouring trees. probably by an unknown night-flying insect.

The existence of such a large amount of natural crossing means that the cacao trees of Trinidad are a set of extremely complex hybrids, whose progeny show the usual type of Mendelian segregation. The main fact about a hybrid is that it cannot breed true, so that the mere taking of seed from high-bearing trees will not insure a high-bearing progeny. Nevertheless, the progeny of some trees will show a higher mean yield than the progeny of other trees, and what must be looked for first is the ability to transmit yield rather than the actual yield of a tree itself. Boiled down, the theory of breeding cacao is this, that the value of a tree for seed purposes can only be estimated by taking the average yield of its daughter trees, and using this as a basis for selection. I need not elaborate the theory any further; its exact working out is somewhat difficult and demands a knowledge of the working principles of genetics. But in closing my remarks on breeding for high production in cacao I shall draw your serious attention to the fact that while the entomologist and mycologist have had a fair scope for their work, the specialist in plant breeding has never had a chance and it is time that he had one. If you had a cacao experiment station in which a hundred self-fertilised progeny were grown in rows from

each of 500 high bearing parents from all over the island, it would not take more than a few years, say three generations, before trees guaranteed for high productivity would be available for wide distribution.

To turn for a moment to another aspect of yield. It has been thought that by using budded trees from known heavy bearers fields of uniformly high productivity could be obtained. There are, however, difficulties in the way of such a supposition. In the first place, it has been shown that yield depends considerably on 'setting capacity.' When you bud a tree, does the 'setting capacity' follow that of the stock which is an unknown quantity, or does it follow that of the scion? There are many reasons for believing that the stock in this connection is, at least, as important as the scion, and it has been shown in cotton that a shedder can be partially converted into a non-shedder by the employment of a suitable stock. The converse of this is also true. Experiments with grafted and budded rubber in the East have also led to the conclusion that the stock is of very great importance in influencing yield, and the Dutch workers are now of the opinion that the only test of the value of a tree for budding purposes must be based on an examination of its vegetative descendants. If a tree produces good vegetative offspring it is a good tree; if it does not, it is a bad tree. The figures obtained for the yields of budded cacao at River Estate indicate that some of the budded strains are good, while others are decidedly bad. I believe that there is room for both budded and seedling cacao in Trinidad, but the future for the latter is probably greater. It is important to note also that the seeds from budded cacao though perhaps uniform in size need not necessarily be uniform in quality, for if a budded Forestero tree is pollinated by Criollo pollen the resulting seeds will probably partake somewhat of the Criollo quality. That is, Mendelian segregation may take place in a single pod with respect to quality and there may be half-a-dozen qualities present in such a pod. The unit of quality must therefore be taken as the single bean.

Before closing, I should like to emphasize the point that the manufacturing end of the cacao industry is a quarter of a century behind that of the cotton industry in its attitude towards its raw material. The cotton spinner now realises that uniformity of quality is based on pure strains of cotton, and he realises that all his manufacturing processes are based on the behaviour of a single cotton hair as the unit. When the cacao manufacturer realises the importance of linking up his activities with those of the grower, we shall then, and not until then, be able to breed cacao for quality. At present we cannot do this because the manufacturer has not reduced his definition of quality to exact scientific terms and until quality is analysed in a precise manner from the chemical, physical, and botanical, points of view the plant breeder will continue to be held up.

RAINFALL IN THE PLANTING DISTRICTS.

NOTE.—It must be understood that in some cases these figures are obtained from one Estate only in the district named and do not necessarily represent the average for that district.

	For the period 1st April 1925 to 25th April 1925.	For the Week Ending 2nd May 1925.	For the Week Ending 9th May 1925.	For the Week Ending 16th May 1925.	For the Week Ending 23rd May 1925
Yercaud	2.09	0.23	4.03	...	...
Pollachi	1.79	0.16	...	...	...
Bodinayakannur	...	0.89	0.70	...	...
Manjeri	1.67	2.39	1.48	...	...
Nilambur	N. R.	2.32	N. R.	...	...
Vayitri	3.79	1.30	0.89	...	...
Manantoddy	1.61	2.05	2.72	...	...
Cochin	4.43	0.80	0.34	...	...
Gudalur	1.81	N. R.	3.29	...	...
Naduvattam	0.24	2.60	4.50	...	...
Ootacamund	3.00	0.78	2.56	...	...
Coonoor	1.14	2.09	1.81	...	...
Kotagiri	1.07	0.87	N. R.	...	...
Mundakayam	2.62	3.05	5.28	3.44	2.19
Somwarpet	3.43	0.34	2.02	Nil	Nil
Kalthurithy (S. Trav.)	2.12	2.08	1.10	2.37	0.62
Peermade	N. R.	N. R.	N. R.	...	...
Vandeperiyar	2.03	1.42	.88	.40	...
Chittavurrai (High Range)	...	...	From 1st April 1925 to 22nd May, 1925.	...	...
Kalaar (High Range)	4.98	.72	2.36	3.14	5.21
Billigirirangans	N. R.	N. R.	N. R.	...	0.43
Mooply Valley	1.26	1.55	1.79	4.62	.84
Dataypore (Haassan)	4.34	0.98	3.26	0.63	...

N. R. = No Return.

The Planters' Chronicle.

Recognised as the Official Organ of the U. P. F. S. I., Incorporated
Secretary's Registered Telegraphic Address "UPASI," MADRAS.

Mr. EDWIN VINCENT.—Managing Editor, Coimbatore,

Telegraphic Address:—"CHRONICLE," Coimbatore.

VOL. XX No. 23]

JUNE 6TH 1925.

[PRICE AS 8.

	PAGE.		PAGE.
The Monsoon	... 363	Shevaroy Planters's Associa-	...
The S. I. Planters' Benevol-	...	tion	... 375
ent Fund	... 363	Rubber Research work in	...
Monthly Market Notes by	...	Ceylon	... 381
"Eothen"	... 365	Rainfall in the Planting	...
South Coorg Notes	... 368	Districts	... 385
The Kanan Devan Planters'	...	U. P. A. Statistics, Shipment	...
Association	... 369	of South Indian produce	...
		during April 1925	... 386

PRICE OF "A" COFFEE.

BY CABLE LONDON, 5th June, 1925.

141s.—per cwt. Market Quiet.

THE MONSOON.

It is doubtful if at the time of writing (June 6th) the monsoon can be said to have burst in the strict sense of the term, in Southern India. From May 31st monsoonish conditions have prevailed and if it is really in, then it has come in like a lamb. Reports from Travancore say "Monsoon very feeble so far" and another refers to the "Chota Monsoon".

In Coimbatore the June winds have begun in real earnest; precursor of the monsoon burst, but clear skies proclaim the lateness of the "burst". A glance at the range of hills to the west of us however is sufficient to realise that cloudy skies cannot long be delayed now. Our South Coorg correspondent is satisfied that they have it, and Calicut, together with other West Coast towns, will no doubt show substantial rainfall figures for the week ending to-day. The High Range have had a comparatively quiet week we believe and altogether the figures will probably show that although the monsoon has arrived, it has done so by the back door, so to speak.

THE S. I. PLANTERS' BENEVOLENT FUND.

At the Annual Meeting of the Anamallai Planters' Association last week a reference was made to this fund by the Honorary Secretary, Mr. Sampson, in the course of his report on the year's working. We have referred on previous occasions to the record set up by the Anamallais in the matter and it was with considerable gratification that we listened to the announcement of this year's figures. Our memory does not serve us well enough to venture with absolute

confidence but we believe we are right in saying that some Rs. 1800 were contributed by the Association's members during the year and it is of some interest to learn that only one other Association can claim to have passed the Rs. 1000 mark. The most striking feature however is not the amount subscribed. It is rather the fact that 100 % members paid their contributions and we heartily congratulate the Anamallais on their proud record.

We have further very great pleasure indeed in pointing out that the Mundakayam Planters' Association can similarly boast 100 per cent of subscribers. The amount is not so large as that of the Anamallai's which includes of course a number of donations from Estates, Life Members etc., but the spirit is evidently there and is much to be admired. In this connection we would like to draw attention to the report of the proceedings of the Mundakayam Planters' Association which appeared in our last issue. We were present at the meeting and by the very kind invitation of the Chairman, took part in the discussion. It will be seen that Mr. J. R. Vincent brought up the question of the reserve fund; not for the first time has this aspect been considered, and we believe we are right in saying that the ordinary subscriptions do not permit of any large yearly accretions to the capital account. He was opposed on the grounds that large reserves subscribed for now, would only mean the establishment of a permanent income for the benefit of future generations who would thus be relieved of their obligations and responsibilities. It is a point of view to which we cannot subscribe but which we have to admit does carry some weight and is current in a good many quarters. Mr. Vincent's object however was in some measure obtained since he succeeded in drawing attention to the desire for more subscriptions from estates i. e. their agents and principals. A generous response from proprietors would probably mean that the fund would be made safe; would be placed in a position to meet *unexpected* calls upon it. We never know from year to year what the expenditure is going to be and incidentally the receipts, to a considerable extent, are also an uncertain factor. That is why we expressed the opinion, without any authority to do so by the way, that the Secretary of the Fund was anxious to obtain a regular *clientele* of subscribers giving him an assured yearly income on which he could depend. The fact arises out of all this, definite and indisputable, that if every District Association could boast, as the Anamallais and Mundakayam can, of 100 per cent collections, then all this talk of reserve fund would become unnecessary. If in addition 100 per cent of Estates subscribed, then indeed the Fund would be placed in a position quite free from anxiety of any kind and it is a very modest thing after all to ask Rs. 10 from an individual and Rs. 25 from an Estate as a yearly premium against the bad times which it is impossible for all of us, without exception, to avoid.

We trust that all Associations will make special efforts this year towards this security which is so earnestly desired by those responsible for the administration of the fund.

MONTHLY MARKET NOTES BY "EOTHEN."

LONDON MAY 14th 1925.

Tea. The tea market has been overshadowed by rubber, but nevertheless has been reasonably healthy during the past month. Buyers, however, have shown great discrimination and demand has been very keen for all fine liquoring and tippy teas. Fannings with good cup-quality and some appearance have been absorbed readily. Anything with autumnal character has been selling well. The decline in value of poor liquoring, lower medium, and commoner sorts has continued, and many invoices must have sold at almost below cost of production. Rough stalky kinds were difficult to sell.

The market anticipates an increase in the Northern Indian crop but it is early yet to forecast. It all depends upon the class of tea, but you must be tired of the "fine plucking" cry by now. How important it is is shown by the auction reports. There is always a demand for good teas.

The following are the average prices, up to May 10th not including this week's sales:—

	Week Ending May 10, 1925.	Current Week 1924.	Total Jan. 1 to date 1925.	Total Jan. 1 to date 1924.
Northern India.	1/3.65d.	1/5.32d.	1/6.15d.	1/5.50d.
Southern India	1/5.43d.	1/6.81d.	1/6.27d.	1/5.86d.
Ceylon	1/8.42d.	1/8.49d.	1/8.20d.	1/8.00d.
Java.	10d.56d.	1/2.27d.	1/0.90d.	1/2.39d.

Thus it will be observed that the averages to date, except in the case of Java (which has been sending terrible stuff) are actually up on last year, despite the discontent and complaining there has been about prices.

The London stock at April 30th was 205,545,968 lbs., of which 133,130,496 lbs. were Indian teas.

At the last two Ceylon sales quality was remarked as being much better, and doubtless the anti-coarse plucking cry is taking effect. Pekoe was dearer. Tea shares have been dull, not only over-shadowed by rubber, but there is a general feeling that the immediate prospects of tea shares are not too promising. On dividend yields alone quotations are probably justified, but investors and speculators look to the future; not to the past, and are doubtful whether last year's good time will come again. For the time being then, no particular movement is expected in tea shares, but towards

the end of summer we should know which way the market cat will jump. Yesterday's Indian sale was remarkably cheerful. Competition among blenders caused the price of common teas to rise a $\frac{1}{2}$ d to a 1d. per lb. over Monday's rates. The best liquoring parcels fetched high prices. It was noticed that the quality of some of the Southern Indian tea was exceptionally good. The better prices, however, had no effect upon the tea share market.

At the forthcoming meeting of the Assam Frontier Tea Company to be held in July proposals will be submitted to shareholders for capitalising reserves and for issuing to the Ordinary shareholders for each Ordinary share held a bonus of three Ordinary shares.

Rubber. The rubber market has boomed, and once the 1/10d. mark was passed, there was increased interest in the shares. On May 1st the welcome announcement was made by the Colonial Office that the exportable quota of standard production for the current quarter ending July 31st would be 65 per cent. This was the result of the average price of rubber for the quarter ended April 30th working out at over 1/6d. per lb.—1/7.356d. to be exact. This average was the highest of any quarter since restriction was begun, and was the first average of over 1/6d. which has been obtained under the scheme. The increased quota was heralded with pleasure by the producing companies, and if the price keeps over 1/6d. for the current quarter, thereby allowing a 75 per cent. percentage to be in force on August 1st, the opponents of restriction will probably feel less strongly about it. It has begun well.

An outstanding feature of the past month was the masterly defence of restriction put forward by Mr. H. Eric Miller, the retiring Chairman of the Rubber Growers' Association at the annual meeting of that body held on April 29th. Mr. Miller replied strongly to the critics of restriction, including the City Editor of the Times and Mr. Harvey Firestone, disposing of the latter in a very few words. One of the important statements Mr. Miller made was that during his recent visit to America he met many tyre manufacturers (*not* Mr. Firestone) all of whom quite approved, purely from their own point of view, the restriction scheme, and all of whom would strongly disapprove of any material tampering with the provisions of the scheme. It is only fair to add that at the time Mr. Miller was in America the price of rubber was something like 1s per lb. under what it is to-day.

With regard to the causes of the boom—for rubber jumped 7d. in a week and touched 2/6d. on the evening of May 11th—it is fairly obvious that America has been caught short of May rubber. This short position is due partly to the fact that the American manufacturers stubbornly and foolishly pursued a hand-to-mouth buying policy instead of properly covering themselves for future requirements. The anti-restriction movement in the East and on this side

undoubtedly misled many of them into thinking that the restriction scheme would be either abandoned or so stringently modified as to become almost negligible in importance. The Americans were thus misled into thinking that by this time there would be heavy additional releases of rubber. Despite all the warnings which they have had, the most striking warning, of course, being the regular heavy weekly reductions in the London stocks, they have pursued their niggling policy of buying for too long and have now come up against the hard fact of a shortage of spot rubber. The very strong market on Monday was, of course, caused by keen American buying, but assisted by the London stock figures.

The stocks in London this week have been reduced by 1,832 tons to 9,887 tons. The deliveries amounted to 3,350 tons and landings 1,518 tons. The decline in the London stocks has amounted to nearly 20,000 tons since the beginning of the year. The stock a year ago was 54,546 tons and 56,613 tons in 1923.

The rubber share market has at last responded and something approaching boom conditions have obtained during the past few days. To the impartial observer it would appear that some of the rises have been out of all proportion to the values of the shares and that prospects have been sufficiently discounted and to spare. On a basis of last year's dividends many of the leading companies do not show a dividend return at present prices of more than 3 per cent, which means that to obtain an adequate return for shares of such a speculative character dividends this year will have to be trebled or quadrupled.

Far-seeing people are not inclined to be over-pleased with the present high price of rubber. They fear that it will cause a decrease in consumption and it has already had the effect of rousing the Free Trade papers in this country and the anti-British papers in America to furious attacks against the restriction scheme.

Coffee. The somewhat depressing tale told last month has to be repeated, with emphasis, the weakness in Brazil having become accentuated during the past five weeks. Consuming markets, particularly the United States, have lent no hand in supporting prices but, on the contrary, seem still to follow a policy of buying only that which is urgently needed. There have been reports that the Coffee Defence Committee of Sao Paulo has been actively engaged in buying coffee in Santos without other apparent result, so far, than that of depressing Brazilian Exchange. The New York speculative market, owing to the willingness of Brazilian holders to sell, became rather demoralized. Superior Santos could be bought this week at 97/6d. per cwt. as against 108/- a month ago and 120/- at the beginning of March.

The statistics published by Messrs. Duuring and Zoon show the world's visible supply to be now 5,335,000 bags marking a diminution of 54,000 bags during April but in this connection it must be mentioned that the stock in Rio was represented as only 93,000 bags whereas a recount which took place at the end of April showed it to be 177,000 bags. Total deliveries in April of 1,536,000 bags compare with 1,407,000 bags last year; the latter figure, however, was exceptionally small and consequently the comparison is less favourable than it appears.

Messrs. James Cook and Co. of Mincing Lane report that plentiful supplies have been offered in auction on our market but until recently the bulk of the offerings were readily absorbed at hardening prices. The spectacular decline on the New York "future" market last week seems, however, to have somewhat intimidated buyers as at our auctions last Thursday price concessions of a few shillings were generally necessary in order to effect sales.

Mr. Edward Greene, deputy chairman of the Brazilian Warrant Company at the annual meeting alluded to American resentment at the high prices of coffee which obtained last year. He added: "I have no fear that the consumption of coffee has been seriously damaged in the United States, for my experience in that country was that coffee is the only beverage left from which a little comfort may be obtained. Taking all things into consideration, it seems to me that the Sao Paulo Government are well advised in their present policy, which is, if I understand it aright, to try to stabilise prices at a level which is remunerative to growers."

American reports to hand last mail state that the market is entirely featureless and du'll both speculatively and commercially. Also.....nothing is discernible that would be likely to cause a price advance.

At Tuesday's London sale Kenya bold grey and greenish fetched 148/-; to 150/-; medium at 142/-; Uganda, bold grey brownish from 113/-; to 123/-; small at 114/-; peas at 126/6d; robusta, brownish from 107/6d; to 109/6d., Colombian, medium greenish at 146/-; Futures were quiet.

SOUTH COORG NOTES.

Weather. The monsoon, to all intents and purposes has now broken. Both yesterday and today, are typical monsoon days. The rainfall up to date has been about normal.

Cricket. The annual cricket match "South Coorg v. North Coorg" was played on the Pollibetta Gymkhana Ground, on the 17th ultimo. A very keen game, in which North Coorg won by 7 runs.

The return match was played at Mercara on the 31st ultimo. South Coorg won the toss, and elected to bat, and had run up 80 runs for the loss of five wickets, when rain came down, and the match was abandoned.

Crop. Prospects all round are fairly good. It is now hoped that last season's prices for coffee, will still hold good.

General. Quite a number of residents have gone home this year from our community.

THE KANAN DEVAN PLANTERS' ASSOCIATION.

(INCORPORATED).

Annual General Meeting.

Proceedings of the Annual General Meeting of the above Association held at the High Range Club, Munnar, on Saturday the 25th April 1925 at 3 p. m.

PRESENT. Messrs. W. A. Lee, (In the Chair) J. S. B. Wallace, E. C. McCankie, W. J. Dixon, H. A. Ragg, C. Boyd, C.A. Mackenzie A. G. Marshall, Wm. Mackenzie, W. O. Milne, C. McIntyre, J. Gray G. R. Strachan, M. C. Koechlin, C. P. Gouldsbury, J. S. Hawkins C. H. Mitchell, A. J. Wright, A. Yates, C. John, J. C. Swayne, G. D. Marr, J. W. Tolson (Hon. Secretary) E. E. Ranicar, H. O. Thomas, F. G. Grandage.

VISTORS. G. E. Waghorne, J. O. Patterson, B. Mathews and C. Villiers Stuart.

The notice calling the meeting having been read,

The following Agenda was laid on the table :—

1. The Chairman's Remarks.
2. Honorary Secretary's Report.
3. Accounts.
4. The U. P. A. S. I. Delegate's Report. Extra-ordinary General Meeting held on 25th March 1925.
5. Report of the Control Committee Members U. P. A. S. I. Labour Department.
6. U. P. A. S. I. Cess for Season 1925/26.
7. Delegate's Report on Sri-Mulam Popular Assembly.
8. Delegate's Report on T. C. P. Association.
9. Election of Member to the Travancore Legislative Assembly.
10. U. P. A. S. I. Sports club.
11. Election of Chairman, Hon. Secretary and Committee for the current year.

Chairman's Remarks. The Chairman addressed the meeting with a few opening Remarks and as time was short called upon the Hon. Secretary to read his Report.

Honorary Secretary's Report. I beg to place before you my Report on the Working of the Association for the past year.

There are 34 members on the register who represent a total acreage of 22947 Acres of Tea 685 Acres of Coffee and 257 Acres of Cardamoms.

Tea Crop. The crop secured during the Association's year amounts to 13,040,171 lbs. the yield per acre being 561 lbs. all over this being a decrease of 794,683 lbs. on the previous year.

In accordance with the U. P. A. S. I. resolution, a quarterly statement has been forwarded to the Secretary U. P. A. S. I. Madras. I would like to take this opportunity of thanking all members for the promptness with which they have furnished the figures required.

Meetings. During the year 5 Committee meetings and the Bi-Annual General meeting have been held. Delegates were present at the 31 st. Annual Meeting of the U. P. A. S. I. at Bangalore; the Extra-ordinary General Meeting of the U. P. A. S. I. held on 25-3-25, the meeting of the General Committee of the U. P. A. S. I. held on 26-3-25, the Sri-Mulam Popular Assembly and the Travancore Combined Planters' Association. Your Committee during the past year have framed rules to meet the case of coolies bolting from one District to another. These rules have been accepted by the Central Travancore Planters' Association and the South Travancore Planters' Association.

Medical Grants. The grants in respect of the three Grant-in-Aid Dispensaries have been paid regularly and our thanks are due to Her Highness' Government for this continued concession.

Lady Amphilh Nursing Institute. A subscription of Rs. 800 has been paid by this Association and I believe I am right in saying that members have appreciated and benefitted from the services of the Institute.

Roads and Bridges. Owing to the abnormal floods of last July, the Roads and Bridges of this District suffered very considerably. Progress has been made in restoring and rebuilding and it is to be hoped that communications will be thoroughly established before the coming Monsoon. The Government is fully alive to the necessity of restoring the Bridges and has assured our delegate to the Sri-Mulam Assembly that the Roads of this District have their serious consideration

The Bodi-Mettu Ghaut Road maintenance grant has been collected and paid during the year.

Inter District Golf and Tennis. This Association was again represented at the Inter District Tennis and Golf Tournaments and our congratulations are due to Messrs. J. S. Hawkins, C. P. Gouldsbury and J. C. Swayne on winning the Tennis for the fifth consecutive year and to Messrs. G. A. Holden and W. P. Laird on winning the Golf. This Association has also to congratulate Mr. J. S. Hawkins on his election as president of the U. P. A. S. I. Sports club.

Sri-Mulam Popular Assembly and T. C. P. Association. Mr. A. J. Wright again represented our interests at these meetings and we shall have pleasure in hearing his Report later on. This Association has to congratulate him on his being again elected Chairman of the T. C. P. A.

War Memorial. I am glad to report that through the generosity of an anonymous donor the War Memorial debt has been cleared.

S. I. P. B Fund. There are now 50 members—an increase on last year of 6 members; a total of Rs. 630 was subscribed to this fund during the year.

Cess. All subscriptions have been paid during the year and I have to thank all members for the promptness with which this has been done.

Accounts. I regret that a copy of the accounts has not been circulated before the meeting, but owing to shortness of time for the Audit, the end of the financial year taking place on March 31st I have been unable to have them typed. The financial position of the Association is sound and I ask that members will agree to pass them. A certified copy signed by the Auditor Mr. R. Brown is on the table, together with the books for any member to scrutinize them, who may wish to do so. I trust that later they will be passed and approved.

Before placing my resignation in your hands I would like to thank my Chairman and Committee for all the help they have given to me during the past year.

The Chairman in thanking the Honorary Secretary for his report made special reference to the keen interest Mr. Tolson had taken in the affairs of the Association during the three years they were fortunate to have him as Honorary Secretary, and regretted, that as Mr. Tolson was going on Home furlough shortly, the incoming Committee would not have the benefit of his assistance for the coming year. A every hearty vote of thanks was accorded to the retiring Hony. Secretary.

Accounts. These were considered by the meeting, approved of and passed, on the proposal of Mr. A. J. Wright. Seconded by Mr. C. P. Gouldsbury.

U. P. A. S. I. Delegate's Report. Mr. J. S. B. Wallace read a Report on his visit to the Extra-ordinary General Meeting held at Ootacamund on March 25th last.

Report of the Control Committee. The reports of the Control Committee members for Palamcottah, Sriyilliputtur and Coimbatore were read and listened to with interest.

U. P. A. S. I. Cess for Season 1925-26. The cess for the above season was explained to the meeting by the Chairman and approved of.

Delegate's Report.

Sri-Mulam Popular Assembly. I attended the twenty-first session of the above Assembly, which opened on the 9th March 1925 as member representing your Association.

In due course I made my representation regarding the Northern Outlet Road particularly requesting the making permanent of the temporary work put in of necessity after last Monsoon, as I was instructed to do so. This referred specially to Bridges erected since July last over breaches caused by the floods. I endeavoured to impress upon Government the urgent necessity for the adequate restoration of communications before the approaching Monsoon and to obtain their assurance that the seriousness of the position is fully realised. In reply, the Dewan assured me that everything possible was being done to expedite the restoration and stated that to facilitate this the local officer of the Public Works Department had been instructed to submit all Estimates direct to Trivandrum, where they were receiving attention.

The members representing the four Planters Associations in Travancore jointly requested an interview with the Dewan and the Chief Engineer. This was very kindly accorded to us and we were able then to go into matters in more detail. I trust that my efforts will prove to have been helpful.

I was instructed to enquire what the intentions of Government are regarding the Western Outlet Road. In reply to this the Dewan informed me that the question was very largely bound up with the development of Cochin Harbour and indicated a probable Conference with the Association when the Harbour proposals are more advanced.

Government appear to have realised that it is hopeless to restore the previous road from Perumbankuthu Bridge (Mankulam) to Kalaar Estate. They estimate that a deviation road to Munnar, approximately 16 miles, would cost from Rs. 4½ to 5 lakhs. I gathered that they were not very likely to consider this expenditure unless there was some assurance as to the use that would be made of the road for transport to Cochin.

The Session came to an end rather prematurely on Friday the 13th ultimo, as all the business to be brought forward by the members in attendance had been completed, fully. Three quarters of the members walked out of the Assembly, on the Second day of the session, after a difference with the Dewan on the subject of the reduction of travelling allowances, which the members contended, had lowered the status of the Assembly. They absented themselves for the remainder of the session.

Delegates Report on Travancore combined Planters' Association. I attended the Annual General meeting of the above Association in Quilon on the 7th March 1925, as representative of your Association.

A copy of the official Minutes will have reached you by this time, I presume, as they are published in the Planters' Chronicle of the 21st. March. (No. 12)

Income Tax. The most serious business before the meeting was the proposal to grant Rs. 500 from the funds of the Association towards the cost of the test case now before the High Court in connection with the products of Edavagai lands. In accordance with the views of your Committee, expressed at the meeting at which I received my instructions, I supported the proposal, which was carried.

I do not think that there is anything else calling for comment in connection with the business of the meeting, but I shall be glad to furnish any further information that may be desired.

A vote of thanks to Mr A. J. Wright proposed from the chair was carried unanimously.

Member of Travancore Legislative Council. The Chairman asked the meeting to pass a hearty vote of thanks to Mr. J. Mackie of Quilon for all the work he had done in the past for the planting Associations.

Carried unanimously.

It was explained to the meeting that Mr J. B. Cook, Ashamboor Estate, had agreed to stand for election and it was resolved to support his candidature.

U. P. A. S. I. Sports Club. Mr. J. S. Hawkins addressed the meeting and asked that a serious endeavour might be made next year to send a Rugger Team up to Ooty.

Mr. M. C. Koechlin suggested that there should be club colours. Mr. J. S. Hawkins agreed to bring the matter up at the next meeting of the U. P. A. S. I. sports club.

The following resolution was put before the meeting by Mr. J. C. Swayne and seconded by Mr. G. R. Strachan:-

That all future Teams to represent this District be chosen by the members of the U. P. A. S. I. sports club and not by the Committee of the Association.

Carried.

Roads. Although this item was not on the Agenda the Chairman asked if he might have the sanction of the meeting to include it.

On the meeting agreeing, Mr. J. S. B. Wallace proposed and Mr. J. M. Bridgman seconded the following resolution:-

"That this Association address the Madura District Board and request them to take in hand the repairs necessary on the Bodi-Theni Road which is at present in a very bad state.

Carried unanimously.

Election of office bearers. The following members were elected:-

Chairman	W. A. Lee Esqr.,
Hon. Secretary.	H. J. Watson Esqr.,
Committee	J. S. B. Wallace Esqr.,
"	Wm. Mackenzie Esqr.,
"	A J. Wright Esqr.,
"	G R. Strachan Esqr.,
"	J. M. Bridgman Esqr.,

With a vote of thanks to the Chair the meeting terminated.

J. WHITELEY TOLSON.

Hon. Secretary.

W. A. LEE,

Chairman,

SHEVAROY PLANTERS' ASSOCIATION. (INCOR.)

Proceedings of the Annual General Meeting of the Shevaroy Planters' Association (Incorporated) held at the Victoria Rooms Yercaud at 1-30 p. m. on Thursday the 28th May, 1925.

Members Present. Captain E. H. A. Travers Drapes (Chairman), Rev. Fr M. Capelle and Fr. Falsandier Messrs W. A. Rahm, W. Rahm, C. Rahm, N. M. Hight, C. L. Hight, C. D. Ryle, E. L. Poyser and V. L. Travers Drapes (Honorary Secretary).

Visitor Mr. P. J. Watts.

Agenda.

1. Notice calling the Meeting was read.
2. *Committee's Report for year ending 31-3-25.*

The Chairman called upon the Honorary Secretary to read the Committee's Report for year ending 31-3-25.

Report of the Committee.

Meetings. The following were held during the year :—

Aver. Atten.

Annual-Extraordinary and Special General Meetings	10	12.8
Committee Meetings	..	9 6.6

Acreage. 1st April 1924 began with 3085 acres.

Mr. Kandasamy Chettiar and Mr. Singaram, with 75 and 100 acres respectively joined the Association during the year, making for 1924-25 3260 acres among 24 Estates. The coming year starts with 3286 acres among 24 Estates : increase 26 acres.

Correspondence. 448 letters and 1031 Circulars and notices were sent out during the year—an increase of nearly 22 per cent over last year's figures.

Subscription during the year was one Rupee per acre, divided up as follows :—

Annas 12 to U. P. A. S. I. and annas 4 per acre for your Association.

The Scientific Department called for it's promised annas two per acre for 1924-25, which was collected from subscribers and paid in February this year.

Subscription for 1924-25 has been collected in full, the only arrears being those carried forward from the previous year due by Tipperary and Glen Peak estates.

Personal Member. Mr. A. H. Whittle joined the Association as a personal member in December last.

Budget. for 1925-26 has been sent to all members and you will be asked to pass the same to-day.

As there is practically no increase of subscribing acreage for 1925-26, it has not been found possible to reduce the annas 4 per acre for the up-keep of the S. P. A.

Your Committee desire to emphasise the statement made by them more than once, that for every additional 1000 acres over and above the present subscribing total we can expect a reduction of annas one per acre, and proportionately less thereafter, and until the many non-subscribing estates in the District join up, we must accept the burden of a comparatively high cess for the privilege of keeping our Association alive.

Accounts. duly audited have been placed in Members hands and are also on the table.

The year ends with a balance of Rs. 1765—13—9 divided up as follows :—

	Rs	A	P	Rs	A.	P.
Cash at Bank Cr. of Police Reward Fund ...	196	0	0			
do. of Sprayer Deposit ...	930	0	0			
do. of Association ...	573	8	4			
				1699	8	4
Cash with Honorary Secretary ...				34	5	5
Value of Bamboo Passes and Breach of Contract Forms ...				32	0	0
TOTAL ...				1765	13	9

The surplus on the year's working amounts to Rs. 237-7-0 against the Budget estimate of Rs. 95-0-0.

It is interesting to note that since Incorporation in March, 1922 by careful economy, and in spite of slender resources a sum of about Rs 260-0-0 has, in 3 years, been added to our surplus cash asset.

Work during the year.

1. *Forest Leases.* The Conservator of Forests met the members of the Association in May last and as a result of our views placed before him, submitted recommendations to Government with regard to a change of title after the expiry of the present lease.

You know what these terms are, and you have agreed that they are more suitable than those of the present lease, which in the words of the Conservator himself, "are un-workable".

The main question which has not been definitely answered is whether, if given on Patta, the assessment now Re. 1 per acre would be liable to periodical revision.

Your Association and U. P. A. S. I. have this matter in hand.

2. *Sandalwood.* The Forest Department submitted proposals whereby owners could expeditiously and with less trouble, effect sales of this product direct with Government. This was accepted by your Association, and we trust that in future there would be less difficulty in the matter of control and disposal of sale.

As you are aware sandalwood on all lands applied for assignment, will in future be reserved to Government.

3. *Representation M. L. C.* In May last the Planting Member submitted proposals for improved representation of planting interests on the Legislative Council to which your Association gave consent. At the Annual Bangalore Meeting it was agreed to contribute a sum of Rs. 1000-0-0 per mensem from U. P. A. S. I. funds towards the employment of a whole time politician to lead the European non-official party in the Council, in co-operation with Commerce, Trades, and other allied bodies.

4. *Articles of Association U. P. A. S. I.* In view of the change of policy on the part of supporters of the Labour Department, alteration of the Articles of Association was found necessary, to which your Association gave consent. Broadly outlined it means abolition of "A" and "B" Group with substitution of one class of membership of which Coffee pays as. 12 per acre per annum. as before; separate Control Committees supervised by the Executive Committee, for management and control of the Labour Department, and a separate rate of subscription payable by the different products supporting the Labour Department.

(b) *S. P. A.* In October last under instructions of General Meeting, article 6 of the Articles of Association was altered to admit of owners of less than 50 acres joining the Association. This was duly and unanimously confirmed the month following.

We trust that the small owners will take this into consideration and think seriously over the matter of joining the Association.

5. *Labour Laws.* We now have authoritative statement that Act. XIII of 1859 will cease to exist on 1-4-26. That all contracts made this year are valid up to 31-3-26; that all pending cases on a Magistrate's file will be carried over 31-3-26 for disposal; but that no new cases will be admitted after 31-3-26.

'We have no more information as regards legislating for an Act to take the place of the present one, other than the information given in the Bangalore Delegate's report, viz: "That the Law Department are considering whether they should bring in a Local Act on the lines of Act I of 1903, with the penal clauses cut out".'

6 *British Empire Exhibition*:—Upon representation to this Association the U. P. A. S. I. have been advised that as no reliable information has been forthcoming, and the Exhibition is to open very shortly, the question of advertising South Indian Coffee had better be dropped.

7 *Planters' Chronicle*:—By an arrangement agreed upon at the Bangalore Meeting, your Chairman is now the special correspondent for monthly District Notes.

8 *U. P. A. S. I. Sports Club*:—At the E. G. Meeting held in March, 1925, it was agreed that your Association join this Club for 1924—25. It is regrettable that this District was not represented at the Ootacamund Meeting, but we hope that in future this difficulty will be removed.

9 *European Association*:—It has been suggested by this Association that a representative be appointed in this District. So far there has been no volunteer for this Honorary Post. We would draw your attention to the desirability of all planters being members of this most useful and well organised Institution.

10 *Agricultural Department*:—We have to acknowledge with thanks the many Reports and Bulletins received during the year on the work done by this Department. These reports were laid on the table at various meetings and are always available to members. We especially desire to place on record our appreciation of the report of Deputy Director of Agriculture (Planting Districts) on the working of the Sidapur Coffee Experimental Station for 1923-24. Twelve extra copies were obtained and circulated to members free of charge.

11 *South Indian Planters' Benevolent Fund*:—Personal subscribers to this fund remain the same as last year 8 in number.

12 *Local Coffee Sales*:—As instructed at the last A. G. Meeting, printed post cards were issued on payment to members, and by this old system re-introduced after a lapse of some years, planters were promptly kept in touch with local offers during the past season and were thus better able to gauge the fluctuating tone of the market.

13 *Freights*:—Strong representation was made to the South Indian Railway Authorities that we should be allowed a few days extension of time, free of wharfage, for the removal of goods at destination similar to that granted to the Mysore planters by the M & S. M. Railway.

In view of their refusal to grant our request, and their omission to state how the difficulty of producing railway receipts in time to obviate demurrage could be overcome, it has been decided to take this matter to the U. P. A. S. I.

14 *Out Agency*.—As you are aware the parcels delivery contract system, which had been of immense service to the planters and residents on these Hills for many years past, was, without reference to the Association, abolished last November. Your Association took this matter up with the Agent who re-introduced the system with effect from the 1st of March, 1925. In view of his sympathetic consideration, we think a vote of thanks should be recorded at this meeting.

15 *Magistrate's Court Waiting Room*.—Several letters passed between your Hon Secretary and Deputy Tahsildar resulting in an arrangement whereby the waiting room will be kept open for the use of planters and the public on all Office Days.

16. *Limiting Advances*. It is regrettable that this has only reached the informal discussion stage. Your committee are of opinion that active and decisive measures are necessary, before the end of the year, to secure the co-operation of all planters on these Hills towards arriving at an agreement that will safeguard our interests and pockets in this respect. In spite of opinions to the contrary, we feel sure that if some arrangement can be agreed upon it will be safer and cheaper in the long run to settle this vexed question among ourselves than to continue the time honored policy of putting up the labourer to the highest bidder. Such a policy does not encourage thrift among the labourers and is a great hardship to the Proprietor with small capital.

Of one thing you may be sure, if the Association makes a move the co-operation of non-members is a possibility, but if we leave it alone higher rate of advances per head is bound to prevail in the future.

17. *General*. Your Association was represented at the last U. P. A. S. I. Bangalore Meeting by your Chairman (Capt. E. H. A. Travers Drapes) and Mr. W. A. Rahm.

On the District Board by Mr. W. A. Rahm.

Holder Sprayers. Advance payment on account 31 Sprayers has been paid by members into the Association funds. It is expected the Sprayers will very shortly arrive here.

18. *Crops and Labour*. Our forecast of last year has fully materialised and we congratulate the District on being able to look forward to a spell of prosperity.

Coming crops will not be as good as the season just over but labour at least ought to be sufficient for our needs.

We conclude our report with thanks to the members for their co-operation and support during the past year, without which the ever increasing activities of your Association could not be directed towards alleviating your personal difficulties, nor be of benefit to the District it represents.

We place our resignation in your hands.

E. H. A. TRAVERS DRAPES,
Chairman.

V. L. TRAVERS DRAPES,
Hon. Secretary.

- | | |
|-----------------------|-----------------------------|
| (Sd.) 1. C. D. Ryle, | } Members of the Committee. |
| „ 2. N. M. Hight, | |
| „ 3. Chas. Rham, | |
| „ 4. W. A. Rahm, | |
| „ 5. Rev. M. Capelle, | |

Proposed by Mr. E. L. Poyser and seconded by Mr. W. Rahm.

“That the report of the Committee be adopted and published in the “Planters’ Chronicle and that a hearty vote of thanks be accorded to the outgoing Committee; and to the Hon. Secretary for the trouble he has taken in drawing up such a lucid report in addition to his other numerous duties,

Carried Unanimously.

Out Agency. Proposed by Mr. C. D. Ryle and seconded by Mr. C. L. Hight.

That a vote of thanks be accorded to the Agent S. I. Ry. for re-introducing the parcels delivery contract system in the District.”

Carried Unanimously.

3. *To Examine and pass audited Accounts for year ending 31-3-25.* Examined and passed unanimously, Revenue Account and Balance Sheet as at 31-3-1925 showing excess of income over expenditure of Rs. 237-7-0 at credit of Revenue Account and Rs. 770-15-3 excess assets over liabilities.

Resolved. “That a sum of Rs. 4-0-0 be added from the S. P. A. General fund to the Police Reward fund, and that the whole of the latter viz: Rs. 200-0-0 be placed in the Yercaud Post Office savings bank.

Carried Unanimously.

4. *Budget 1925-26* showing excess Revenue over Expenditure of Rs. 5-0-0 was unanimously adopted.

5. *A. Election of S. P. A. Office Bearers.* Results of the various ballots were as follows:-

Chairman. Capt. E. H. A. Travers Drapes.

Hon. Secretary. Mr. V. Travers Drapes was unanimously elected Hon. Secretary for the 5th time in succession, but having explained the circumstances which regretfully moved him to refuse the honour, a second ballot was taken and Mr. W. A. Rahm was elected for 1925-16.

Committee Members. Messrs. C. D. Ryle, N. M. Hight C Rahm, B. A. R. Kandasamy Chettiar, V. L. Travers Drapes and Rev. Fr. M. Capelle.

5. B. Election of U. P. A. S. I. General Committee Members. Proposed by Mr V. L. Travers Drapes and seconded by Mr. C. D. Ryle

"That Capt. E. H. A. Travers Drapes and Mr. W. A. Rahm be appointed members of the U. P. A. S. I. General Committee.

Carried Unanimously,

6. To Appoint an Auditor for the Ensuing Year. Proposed that Mr. W. J. Siromani be appointed Auditor for the coming year, on the same remuneration.

Carried.

With the permission of the meeting the following was added to the Agenda:-

7. Co-Operative Society. Resolved "That the Hon. Secretary be requested to address Government for the purpose of obtaining the assistance of an experienced officer with a view to the formation of a Co-operative Society"

Carried,

With a vote of thanks to the Chair the Meeting terminated.

V. L. TRAVERS DRAPES,

Hon. Secretary.

E. H. A. TRAVERS DRAPES,

Chairman.

RUBBER RESEARCH WORK IN CEYLON.

At the conclusion of the general meeting of the Kalutara P. A. on Saturday, Mr. Bertrand called upon the Hon. Mr. F. A. Stockdale, Director of Agriculture, to address the members present on the agricultural matters he had chosen to speak about.

Mr. Stockdale said that research work in agricultural matters was in a most unsatisfactory condition in Ceylon. The first point he would deal with was the obtaining of an increased yield of latex by manuring rubber. According to a series of experiments carried out at Peradeniya, no type of manure of several sorts used seemed to give an increased yield. At the same time it had been found out that the yield was an inherent matter. A heavy yielder continued to yield heavily.

while a moderate or low yielder continued in that capacity. He was inclined to believe that careful manuring would affect the length of life, ability to resist diseases, and general well-being of a rubber tree, but not its latex yielding quality. By some experiments carried out on Galawatta Estate, Major Oldfield tried to prove that nitrate of soda, while it gave little latex-yielding result on rich land still gave improved returns on gravelly land. Analysis had disclosed that the average in general of the plot of land concerned did not vary very much. In fact, the expenditure of money on the artificial manure was poorly supported. Peradeniya experiments had indicated that improvement might be created by the forking of plots. However experiments in Sumatra with nitrate of soda indicated improvements in the latex yield.

It would now be evident how important it was, to keep field records and to find out the true value of the application of artificial and also non artificial manure like vinya to rubber. The Department of Agriculture was willing to help planters by designing experiments and in other ways. The enormous quantity of money expended on manure in prosperous times should be a sufficient inducement for all planters to help the work of the officers connected with the Rubber Research Scheme.

SEED SELECTION.

A matter which he desired very much to press on the attention of all present was the importance of selecting early uniformly heavy-yielding and disease-free mother trees, the selection of mature, and well-formed seeds of these and bud-grafting. Nothing like the extravagant hopes suggested by certain newspapers might be expected from bud-grafting, but he felt certain that experiments in the Dutch East Indies had indicated already that substantial increases might be expected by the proper handling of the three stages named. As with an increased demand for rubber, planters would look for more land to grow rubber on he thought that this was the time to start the work indicated. There should be profits for those who chose to equip themselves with the needed material in time to come. The supply of seeds of high yielding, disease free mother trees, and bud wood from similar trees for grafting purposes might prove of some value to estates. The future of the rubber industry depended on the present enterprise of the planters. He felt certain that the research workers of the Rubber Research Scheme would receive the hearty co-operation of the rubber planters of the district.

A vote of thanks to Mr. Stockdale, proposed by Mr. W. T. Miller and seconded by Mr. Dias, terminated proceedings.—*Ceylon observer.*

BANGALORE—CENTRAL HOTEL, "The best in the Station"

SHEVAROY PLANTERS' ASSOCIATION. (Incorporated).
Budget for year ending 31st March 1926.

Cr.

EXPENDITURE:	Rs.	AS.	PS.	REVENUE,	Rs.	AS.	PS.
U. P. A. S. I. 3286 acres @ 0-12-0 ...	2464	8	0	Subscriptions from Members,—			
Delegates to Bangalore A.G.M. 200 0 0				3286 acres @ 0-12-0 per acre			
" G. C. Meetings ... 100 0 0	300	0	0	U. A. S. I. 2464 8 0			
Office Allowance:—				3286 acres @ 0-4-0 per			
Writer @ Rs. 25 per mensem 300 0 0				acre S. P. A. 821 8 0			
Postages ... 60 0 0				Personal Members ... 12 0 0			
Stationery and Printing ... 30 0 0				Bank Interest	3298	0	0
Repairs to Typewriter 10					18	0	0
Sundries ... 20					...		
30 0 0	420	0	0				
Audit fees	25	0	0				
Sports Club	100	0	0				
Bank Charges	1	8	0				
	3311	0	0				
Excess Revenue over Expenditure ...	5	0	0				
	3316	0	0				
Rs. ...				Rs. ...	3316	0	0

RAINFALL IN THE PLANTING DISTRICT.

NOTE.—It must be understood that in some cases these figures are obtained from one Estate only in the district named and do not necessarily represent the average for that district.

	For the Week Ending 2nd May 1925.	For the Week Ending 9th May 1925.	For the Week Ending 16th May 1925.	For the Week Ending 23rd May 1925.	For the Week Ending 30th May 1925.
Yercaud	0.23	4.03	...	Nil	0.46
Pollachi	0.16	...	...	0.16	Nil
Bodinayakkanur	0.89	0.70	...	0.04	Nil
Manjeri	2.39	1.48	...	0.83	2.70
Nilambur	2.32	N. R.	...	0.30	N. R.
Vayitri	1.30	0.89	...	0.01	2.06
Manantoddy	2.05	2.72	...	Nil	Nil
Cochin	0.80	0.34	...	2.54	2.74
Gudalur	N. R.	3.29	...	N. R.	2.10
Naduvattam	2.60	4.50	...	0.14	N. R.
Ootacamund	0.78	2.56	...	0.13	2.25
Coonoor	2.09	1.81	...	0.10	0.85
Kotagiri	0.87	N. R.	...	N. R.	0.81
Mundakayam	3.05	5.28	3.44	2.19	5.70
Somwarpet	0.34	2.02	Nil	Nil	.15
Kalthurithy (S. Trav.)	2.08	1.10	2.37	0.62	4.01
Peermade	2.73	3.56	1.90	1.20	3.59
Vandeperiyar	1.42	.88	.40	0.54	0.80
Chittavurrai (High Range)	...	From 1st April 1925 to 22nd May, 1925.	...	5.21	1.09
Kalaar (High Range)	.72	2.36	3.14	0.43	2.95
Billigirirangans	N. R.	N. R.	N. R.	N. R.	N. R.
Mooply Valley	1.55	1.79	4.62	.84	2.53
Dataypore (Hassan)	0.98	3.26	0.63	Nil	1.30
Mudis (Anamallai)	...	From 1st April 1925 to 23rd May 1925.	...	10.25	3.71
N. R. = No Return.	...	...	...	...	...

U. P. A. S. I. Statistics. Shipment of South Indian produce during April, 1925.

FROM	To other ports						
	In India.	Ceylon.	United Kingdom	Europe	Asia.	Africa	America Australia
TEA.							
Madras	...	...	93125	600	240	...	...
Calicut	5535	45012	966140	768	629	...	...
Cochin	26247	37971	587279	...	...	...	6360
Tellicherry	...	5205	53212	...	...	...	...
Tuticorin	...	220381	710113	...	...	...	...
Alleppey	...	9350	81098	...	...	...	...
Totals	31782	317919	2490967	1368	869	...	6360
Previously	...	...	...	...	...	...	...
Total lbs. since 1-4-25.	2849265	31782	317919	2490967	1368	869	...
COFFEE							
Madras	395	...	16	...	5	...	...
Calicut	...	...	10761	2896	...	...	...
Mangalore	1559	...	10806	8026	5633	...	20
Tellicherry	...	30	2324	4731	...	...	1290
Bombay	...	...	547	...	995	...	180
Totals	1954	30	24454	15653	6633	...	...
Previously	6379	4	74102	51011	13294	...	1490
Total cwts. since 1-1-25	201387	8933	34	98556	66664	19927	503
RUBBER							
Calicut	...	39614	21475	...	...	...	503
Cochin	463	122483	141924	4550	...	...	6770
Mangalore	...	3770	...	...	...	...	...
Tellicherry	...	...	3793	...	...	...	...
Tuticorin	...	7771	...	...	...	...	...
Alleppey	...	47261	11132	4922	485	...	...
Totals	463	220899	178324	9472	485	...	...
Previously	1221	1430110	1577165	56642	268	...	91810
Total lbs. since 1-1-25.	4221640	1684	1651009	1755489	66114	2000	652781
					753	2000	744591

The Planters' Chronicle

Recognised as the Official Organ of the U. P. A. S. I., Incorporated

Secretary's Registered Telegraphic Address "UPASI," MADRAS.

Mr. EDWIN VINCENT.—Managing Editor, Coimbatore,

Telegraphic Address.—"CHRONICLE," Coimbatore.

VOL. XX No. 24]

JUNE 13TH 1925.

[PRICE As 8.

	PAGE.		PAGE.
Notice	... 387	The Coffee Industry in	
Anaimallai Planters' Association	... 388	Guatemala	.. 401
U. P. A. S. I. Sports Club	... 400	Ceylon Tea at Wembly	... 403
		District notes	... 403
		U. P. A. S. I. Sports Club	... 406

PRICE OF "A" COFFEE.

BY CABLE LONDON, 12th June, 1925.

141s.—per cwt. Market Quiet.

NOTICE.

We have to announce that beginning with the issue of 4th July next the "Planters' Chronicle" will be published at Madras instead of Coimbatore as at present. Will Honorary Secretaries of District Associations and correspondents generally please note that all contributions for the issue of 27th June should be despatched so as to reach us at Coimbatore at latest on Thursday 25th June. Subsequent to that date all communications should be addressed to :—

THE MANAGING EDITOR,

"The Planters' Chronicle"

C/o U. P. A. S. I.

P. B. 155,

MADRAS.

ANAIMALLAI PLANTERS' ASSOCIATION.

Minutes of the Twentieth Annual General Meeting of the Anaimallai Planters' Association, held at the Anaimalai Club on Tuesday the 2nd June, 1925, at 10-30 a. m.

Present:—Messrs. F. Simmons, (Chairman), E. Hardy, C. K. Pittock, D. Cooper, B. L. John, J. E. Carless, A. V. Danagher, J. C. Robertson, J. H. Ireland-Jones, E. V. Hammond, C. L. Napier, S. Sladden, W. H. Martin, O. M. Hetherington, E. A. Stone, G. A. LeMesurier, E. Johnson, T. Davenport, W. Ogilvy, W. V. Reilly, R. V. Hope, E. G. F. Maule, H. H. Stuart, G. B. Reade, & J. E. Sampson, (Honorary Secretary).

Visitors. Messrs. E. Vincent and G. F. M. Forbes, M. C. A. S. P.

Before commencing the business of the meeting, the Chairman regretted that it was his duty to ask for a vote of condolence with the relatives of the late Mrs. W. R. Mackenize, of the Nelliampathies. This was passed in silence, all Members standing.

The Honorary Secretary then read notice calling the meeting.

Minutes:—The Minutes of the following meetings were taken as read copies of same having been circulated to all Members, and confirmed:—

1. Extraordinary General Meeting, of the 12th Febry., 1925.
2. Meeting of General Committee, of the 9th March 1925.
3. Meeting of General Committee, of the 26th March 1925.

Chairman's Address:—The Chairman then read his address, as follows:—

Gentlemen,

As this is the first General Meeting at which I have had the privilege of occupying the Chair, I feel very diffident about making the customary address. I do not propose giving you a dissertation on the prices obtained for the various products of this District because you know as much about them as I do, but I hope you will not think a few words regarding the chief product out of place.

The past year has been a very prosperous one for tea, but the rough must be taken with the smooth, and, after the slump which took place after the War, no one can surely begrudge us our present prosperity. South Indian Teas are gaining favour in the market, and if we wish this to continue it behoves us to maintain a high standard of production. Unfortunately there can be little doubt that a certain quantity of inferior tea is placed on the market, and were the producers of such tea given due publicity it might possibly help to curtail their activities. As long as a high standard of production is maintained, good quality tea should obtain a fair price, and inferior tea the price it deserves.

During last year we experienced a S. W. Monsoon the like of which has not been seen by most of us before and I hope that the experience will not be repeated. Our communications remained intact little damage was done, and considering the damage and loss sustained by other Planting Districts, we can consider ourselves singularly fortunate.

This brings me to the unending subject of our transport problem, either by Railway or Ropeway. Regarding the Ropeway, the thanks of the Association are due to our late Chairman, for having brought the matter to a head, and to Messrs James Finlay & Co., Ltd., for having taken the scheme under their wing. My latest information is, that the various interests concerned have decided to defer final decision in the matter pending receipt of the final Railway Survey figures, which Mr. Ogilvy hopes may be ready by the end of June. Regarding the railway, the survey of the 2½ ft. gauge line was sanctioned and commenced last year, under the auspices of the South Indian Railway, and ought now to be nearing completion. The cost of the survey has been guaranteed by the various interests in the District, and I hope that it has been carried out in an efficient manner. Personally I have always been a firm believer in a Railway outlet as the *eventual* solution of our traffic problem, and I see no reason to alter that opinion, especially in view of the fact that there appears to be every prospect of the Cochin Harbour scheme being brought to a successful conclusion. I do not feel qualified to tell you how long it would take to construct the railway, and I doubt if any member of this Association is in a position to do so, but I do deplore that attitude which would have one to believe that it would take ten years to construct the railway, that it would only be possible to work six months in the year, and so on, ad nauseam. This can hardly be the spirit which animated the pioneers of this District, nor is it the spirit which won the War. It is of vital importance to the District that either one scheme or the other be adopted this year, and I hope that a final decision will be reached within the next few months.

The Pollachi-Vananthorie Road has been taken over by the P. W. D., and it is to be hoped that, when the required rain falls, the work of renovating the road will be put in hand without delay. The Association had been endeavouring to get the Road taken over by the P. W. D. for some time, but with little success until Mr. Congreve, in his usual public-spirited manner, brought the matter directly to the notice of the Powers that Be, and I think our best thanks are due to that gentleman for the action he took.

Labour has been plentiful throughout the year, and appears to be returning in increasing numbers, a fact which speaks for itself as regards the popularity of the District. Labour conditions are steadily improving throughout this country, and we are in no way behindhand in this respect, as I know that all Members of the Association are out to do their best for their labour, and improve conditions, wherever necessary, in any reasonable manner which may suggest itself, or be suggested.

The Labour Department has again been recognised, and it is up to us to give the new scheme a fair trial, especially in view of the fact that it was brought forward by this Association. I believe I am correct in stating that our late Chairman was chiefly responsible for the scheme, and we should be duly grateful to him for the great trouble he took in working it out. It is to be regretted that the scheme did not receive the unanimous support of all Members of the Association, but I feel convinced that those who could not see their way to support it at its inception will find it necessary to do so within a short time. Mr. Pittock has done some invaluable work, as our representative on the Coimbatore Labour Control Committee, and as long as our interests are in his hands we need have little fear. At the last Annual General Meeting the Association passed a resolution requesting Government to take steps to form the Anaimallais into a separate District Board, and in October last, your Chairman, Honorary Secretary and Mr. Congreve met the Collector of Coimbatore, and the President of the Coimbatore District Board, and discussed the matter. Details were gone into, estimates of revenue and expenditure were prepared, and I can see no reason why the District Board should not become an accomplished fact within a short time. The inauguration of the Board will entail a considerable amount of work, and it is only by your active cooperation and help that it can be made the success which it should prove to be. The urgent need for the development of the Township is a matter on which I hope you are all agreed, and it appears to me that development on the scale required for the needs of the District is dependant on the formation of the District Board.

Mr. Martin has kindly taken charge of the present work on the Township, and up to date two roads and sites for two shops, have been cut, and he hopes to complete the erection of four shops by the end of November next. Regarding Chatrams, steps have been taken to acquire land for the proposed Chatram at Angalakurichi, but actual building has not been commenced. Your Committee were of the opinion that there was an urgent need of a Chatram near the top of the Ghaut, so plans and estimates were prepared accordingly, but as it was considered impossible to construct a Chatram before the outbreak of the S. W. Monsoon, it was decided to reconstruct the existing Chatram at mile 14. Mr. Johnson undertook this work, which he has now carried through to completion, and I understand that the Chatram is now very popular with labour. I trust you appreciate the fact that the work must have been carried out at considerable personal inconvenience, because Mr. Johnson lives at least 15 miles from the Chatram.

Attendance at meetings cannot be called satisfactory, and I would venture to point out to those who constantly refrain from attending that they have a duty towards their companies, and that their own personal feelings in the matter of attendance should carry little weight.

Turning to the lighter realm of sport, this District has made history, in that it is the first planting district in Southern India to raise a Rugger team, and the Members of the team, and those responsible for raising it, are to be congratulated on their achievement. In this connection I would draw your attention to the feeble support given to the Upasi Sports Club, and I would ask you to remedy this defect in the future, so that we can claim 100 per cent of subscribers, as is the case with the Planters' Benevolent Fund. I especially appeal to the younger Members, who should be the first to subscribe, as they are likely to reap the benefits of so doing.

In conclusion, I wish to thank the Honorary Secretary for the ungrudging help that he has given me at all times, and to the Committee for their assistance and forbearance shown in dealing with my shortcomings.

I now place my resignation in your hands.

Report of General Committee. The Honorary Secretary then read the Report of the General Committee, as follows :—

Membership :—

Personal. These are now 62 Members, as against 42 for the previous season.

Estates. Estates subscribing to the Association now number 33.

Subscriptions. These have been received in full.

Acreages. Acreages for the year under review, for this District only, were as follows :—

Tea	...	15,503
Coffee	...	2,428
Cardamoms	...	2,654
Cinchona...	...	697

Total .. 21,282

added to which the following acreages in the Nelliampathies continued to subscribe :—

Coffee	...	1,214
Cardomams	...	5.5

making the Association's total 22,501½ acres. Figures for the current season show an increase of 1141.62 acres, the total acreage of the Association now being 23,643.12.

Crops. Crops harvested during the year are as follows :—

Tea	...	5,452,771	lbs.
Coffee	...	203½	tons.
Cardamoms	...	82,271	lbs
Cinchona	...	26,606	lbs,

showing an increase of 417,468 lbs. of tea, a decrease of 37½ tons of coffee, a decrease of 120918½ lbs. of cardamoms, and a decrease of 84317 lbs. of cinchona, as compared with the figures of the previous year.

These figures refer to Anaimallai Estates only.

Planters Benevolent Fund. The year under review has been a record one, as far as our Association is concerned. One more resident has joined as a Life member, (of which there are now 6), in addition to which 6 estates have subscribed Rs. 100 each ; 3 estates and 1 Member, Rs. 50 each ; 1 Member, Rs. 30 ; 4 Estates and 1 Member, Rs. 25 each ; together with 70 at Rs. 10 each, and one extra payment of Rs. 5. A total of Rs. 1860/- has been forwarded to the Secretary, U. P. A. S. I. and the Association can, once more, show 100 per cent of Members supporting the Fund. Writing on the 14th March last, Mr. Waddington stated that, at that date, only one other Association has this year sent in over Rs. 1,000.

Meetings. Including the Annual Meeting, there have been seven General Meetings, and seven Meetings of the General Committee, the average attendance at the former being 19 : only a very slight increase over that of last year, inspite of the much increased Membership.

Roads. As the meeting is aware, the Association has agreed to contribute Rs. 200 per mile, for the 13 miles of the Pollachi—Vananthorie Road, for a minimum of 5 years. Should the new District Board come into force, it is anticipated that one quarter of the tolls collected on this road will be paid to the Board.

Chatrams. With reference to that to be built at Angalakurichi, no further progress can be reported, other than the fact that a small house, erected on the site since the Association's application for the land, has, at the Chairman's request, been omitted from the piece of land for which the Association will, presumably, be asked to pay, in due course.

You will have already seen, from Minutes of the Meeting of your Committee, held on the 26th March last, that it has been suggested that the Chatram at mile 14.6 be dismantled, and a more suitable building erected at the top of the Ghaut.

A request for a permit to take up two acres of land, for this purpose, also for the right to fell and saw timber for such a building, has been granted by the District Forest Officer, subject to certain conditions. In this connection our thanks are due to Mr. Tireman, Chief Conservator of Forests, for expediting this grant: also to Major A. J. H. Russell, Director of Public Health, for recommending the permit.

Your Committee are of opinion that such a building is necessary, and it rests with this meeting to consider if the expenditure can be permitted during the current season.

Township. The Shandies erected some few years ago continue to be a useful source of income to the Association. A sum of Rs. 2,700/- was voted, at the Extraordinary General Meeting held on the 12th February last, (the Minutes of which you have today confirmed) for the purpose of further development of the Township, and certain work in this connection has been commenced.

Accounts. These have been duly audited, and printed copies of same circulated to all Members.

A balance in hand of Rs. 2,440-9-4 is shown: a little short of the sum required for the development of the Township, previously mentioned.

The Budget will be considered at this meeting, and will merit careful attention, as it is possible that, with such buildings in view as the Chatram at Angalakurichi, another at the top of the Ghaut, our share of the upkeep of the Pollachi—Vananthorie Road, and the general expenditure of the Association, the acreage cess will be considerably larger than in previous years.

It is regretted that this meeting is again somewhat late: it would have been possible to hold it nearly a month earlier, but for the ill-health of the Auditor. The Honorary Secretary will be glad to answer any questions in connection with the accounts, and / or other matters.

No Member having any questions to ask with reference to the Report, Mr. Pittock proposed, and Mr. Hardy seconded, that "The Chairman's Address be adopted, and the Committee's report and accounts be accepted". Carried unanimously.

The Honorary Secretary requested instructions for the payment of the Auditors fee, and for the despatch of a copy of the accounts to the Assistant Registrar of Joint Stock Companies, Coimbatore. Such instructions were duly given.

Election of New Members. The following gentlemen were duly elected Members of the Association :—

Mr. H. R. Macrae, proposed by Mr. Hardy, seconded by Mr. Stuart.

Mr. Stevens, proposed by Mr. Danagher, seconded by Mr. Hammond.

Mr. Walker, proposed by Mr. Sampson, seconded by Mr. Pittock.

Dr McEnery, proposed by Mr. Ogilvy, seconded by Mr. Davenport, (Honorary).

Mr. E. H. Beadnell, proposed by Mr. Sampson, seconded by Mr. Ogilvy, (Honorary).

Delegate's Reports :—Mr. Pittock read his report of the Extraordinary General Meeting of the U. P. A. S. I., held in Ootacamund, on the 25th, March, 1925, as follows :—

" At the special request of your Chairman, I attended this Meeting on behalf of the Anaimallai Planters' Association. The business was of a purely formal nature, consisting of passing certain alterations in the Articles of Association made necessary by the adoption of the Select Committee's report on the Anaimallai's Scheme.

The alterations of articles are detailed on page 225, 226 and 227 of the "Planters' Chronicle." The resolution to alter the Articles was put from the Chair, and carried.

As your representative I voted in favour of the resolution.

I thank you for the honour done me in selecting me to represent you."

Mr. Pittock then proceeded to read his report in connection with the Meeting of the General Committee of the U. P. A. S. I. held in Ootacamund on the same date, as follows :—

" I attended this meeting also, at the special request of our Chairman. The meeting was reported in the "Planters' Chronicle" of the 4th, April.

Briefly, the business done was:—

1. The Budget for 1925-26 was passed.
2. Certain necessary alterations in the Rules of the Buying Agency were made.
3. Sports Club:- The time of election of Office Bearers was altered from the U. P. A. General Meeting to the "Planters' Week."
4. Provident Fund:- (a), Europeans:- The Executive Committee was authorised to bring this in force as from the 1st. April, 1925. (b), Indians. This was postponed to a forthcoming meeting.
5. Labour Department, Anaimallais Scheme. Under this heading the Central Travancore Planters' Association brought forward 7 amendments to the Scheme as passed in Bangalore. I opposed all of these on the grounds that. (a), the scheme had not had a trial, and that therefore no amendments were necessary at this stage: (b) that the amendments suggested contained no improvements on the scheme as passed in Bangalore but were rather against what the Bangalore Meeting had decided. The first 6 amendments were carried, and the 7th withdrawn.

The only other important question that came up under this heading was that of representatives of Districts largely interested in Divisions of the Labour Department, but numerically not amongst the 3 most largely interested. It was decided:—' that any association,

other than the three mainly interested, having not less than 1,000 coolies from a Division, as per the last census, may ask for and shall be given representation with voting powers on that Division's Committee.'

I thank you for the honour done to me in selecting me to represent you."

At the conclusion of this Report, the Chairman stated that he considered that the Association should always keep before it the original idea of the Labour Department being controlled by the various "Control" Committees, and deprecated any tendency to interference with the powers of such "Control" Committees from outside sources. With this opinion the meeting expressed its approval.

Mr. Reilly proposed a very hearty vote of thanks to Mr. Pittock for so ably representing the Association, which was carried with applause.

Mr. Carless proposed, and Mr. Hardy seconded, that Mr. Pittock's reports be adopted.

Carried unanimously.

Labour Department Control Committees. Mr. Pittock, as Active Member for this Association on the Control Committee for Coimbatore Division, gave a very full report of his work at three meetings of this committee, including some very interesting figures with reference to sums of money issued by the Coimbatore Division for advances and way expenses, and to the number of coolies despatched, this season, as compared with the similar period last year. Mr. Pittock wished to lay stress on the need for estates keeping a sufficient credit balance with the Superintendents of the Labour Department: the bill received monthly from the Superintendents cannot include the cost of rail fares for coolies despatched the previous month, owing to the delay in receiving bills from the S. I. R. Trichinopoly: consequently in most cases estates have less balance at their credit than is supposed and should estates fail to keep the Department in funds, in order that a minimum sum may be placed with the railway authorities, the latter may be compelled to refuse to entrain further coolies on rail warrants.

The meeting considered that most of Mr. Pittock's notes with reference to these three meetings should not be published, but that a copy of same should be kept on the Association files. At the conclusion of this report, the Chairman added his personal appreciation of the work done by Mr. Pittock on behalf of the Association.

Mr. Cooper read his report, as Active Member of the Control Committee for Srivilliputtur Division, with reference to the only meeting called, and stated that he was leaving for Srivilliputtur next day to attend a further meeting.

Mr. Pittock asked for payment of certain expenses in connection with the attendance at these meetings, and was requested to forward his bill to the Honorary Secretary.

Railway. Read letter from Messrs. James Finlay & Co., Ltd., to the Chairman, dated the 20th May, 1925.

Read letter from Mr. Ogilvy to the Chief Commissioner of Railways, Simla, of the 25th May 1925.

Read letter from Captain E. G. Windle, Planting Member of Council, dated the 20th May 1925.

Read letter from Mr. Ogilvy to all guarantors of the Railway Survey, dated the 1st June, 1925.

Read letter from Mr. Ogilvy to the Agent, S. I. R. Trichinopoly, of the same date.

The Meeting was informed by Mr. Ogilvy that the survey of the proposed Chalakudi—Valparai Railway would not be completed, as anticipated, by the end of last month, and that the earliest date by which reliable figures would be available would be February 1926.

The following resolution, proposed by Mr. Pittock, and seconded by Mr. Cooper, was carried unanimously:—

"That this Association place on record its very great regret that a matter vitally affecting the welfare of the whole District should not yet have reached a practical solution, as the Association was led to expect."

Ropeway. Read letter from Messrs James Finlay & Co., Ltd., dated the 8th May, 1925, to the Chairman. As this firm, and others interested, propose to shelve this matter, pending a full report of the Railway Survey, further discussion was unnecessary.

Budget and Chatrams. These two items were considered together, it being impossible to frame a definite budget without knowing exactly what expenditure on Chatrams will be allowed during the current season.

The Honorary Secretary read a draft Budget, and explained the misunderstanding with reference to two sums of money Rs. 2,700 and Rs. 15,000 (referred to in the Minutes of the Extraordinary General Meeting held on the 12th February last,) in connection with the proposed development of the Township.

The following resolution, proposed by Mr. Jones, and seconded by Mr. Ogilvy, was carried unanimously:—

"Referring to the resolution, dated the 12th February last, regarding a proposed cess to raise Rs. 15,000 for the purpose of development of the Township, such sum to be a first charge on the Anaimalai District Board after its inauguration, and in view of the fact that there is likely to be some delay in the formation of this Board, it is proposed that the matter should be held in abeyance until such formation."

Mr. Martin requested instructions with reference to the sum of Rs. 2,700 already allotted. After considerable discussion it was agreed that that gentleman should proceed with the erection of buildings up to a total cost not exceeding this sum, and in such a manner that, in the event of further sums becoming available for further development, new buildings can be added as conveniently as possible.

At this stage the meeting passed that portion of the budget referring to General Expenditure, amounting to Rs. 7,850, and agreed to a cess of 5.60 annas per acre.

With reference to the proposed Chatram at the top of the Ghaut, Mr. Pittock asked for an explanation as to why this was considered necessary, there being already a Chatram within a few miles. The necessary explanation was given. The meeting fully considered the question as to whether the Chatram should be at the top of the Ghaut or at mile 14.6, and finally came to the conclusion that the latter place was the more suitable. In view of the fact that the Forest Department have already given a grant of two acres of land at the top of the Ghaut for this purpose, Mr. Martin proposed, and Mr. Napier seconded the following resolution, which was duly put to the meeting carried:—

"That the Chief Conservator of Forests be asked if the Association's application for 2 acres of land for a cooly Chatram at the top of the Ghaut may be altered to an application for a total area of 2 acres of land at mile 14.6 around the site on which the present Chatram stands: and that a further sum of Rs. 3,000 be expended to make such building pucca and permanent."

With reference to proposed Chatram at Angalakurichi, the Chairman advised the meeting that the piece of land applied for was .67 acre in extent, and that the probable cost of acquiring same would be at the rate of Rs. 345. per acre. The following resolution, proposed by Mr. Jones, and seconded by Mr. Pittock, was put to the meeting, and carried:—

"That the acquisition of land applied for at Angalakurichi be proceeded with, and that a decision as to what buildings shall be erected thereon be postponed until such time as Government acquire the land on behalf of the Association."

The meeting then sanctioned the calling up of a total of Rs. 10,850, (inclusive of the afore-mentioned Rs. 7,850.) equivalent to 7.75 annas per acre.

District Board :—Read letter dated the 22nd. March, 1925, from the Collector of Coimbatore to the Chairman, and the Chairman's reply of the 27th idem.

Read further letter from the Collector. dated the 14th. April, 1925, with reference to the Conference at Coimbatore, on the 10th. October, 1924.

Mr. Pittock suggested that the Collector, should be advised that the Association had never agreed to contribute to the upkeep of the Ghaut Road, and that the possibility of any such contribution could only be considered if treated strictly as a District Board matter, with which suggestion the meeting was in agreement.

The following resolution, proposed by Mr. Hope, and seconded by Mr. Maule, was duly carried :—

That a select Committee, consisting of Messrs Pittock, Ogilvy, Reilly, Jones, Danagher & Cooper, be elected to go into the matter of the proposed District Board with the Collector of Coimbatore, and report to an Extra-ordinary General Meeting, at as early a date as possible."

The meeting desired that a copy of this resolution be forwarded to the Collector.

Roads :—Read letter to the Executive Engineer, P. W. D Coimbatore, dated the 9th. May, 1925, and reply to same, re Ghaut Road. Mr. Jones referred to the bad quality of the repair work now being done on the Stanmore Club Road, and the meeting directed the Honorary Secretary to call the attention of the Executive Engineer to this.

Read G. O. No. Mis. 572 W, of the 1st May, 1925, with reference to the Paralai Castlecroft Road.

The meeting greatly regretted to note the contents of this G. O., and the following resolution, proposed by Mr. Jones, and seconded by Mr. Pittock, was passed unanimously :—

"This Association views with alarm the decision of the D. P. W. to postpone the remaking of the Paralai Castlecroft Road, and would point out that as a result of the present deplorable condition of this road traffic has already chosen the alternative route, via Valparai and Stanmore, with the result that the 1½ miles of road from Monica to the Club, in spite of recent patching, has already rapidly deteriorated, and, if this is allowed to continue, will shortly become impassable, with the result that all estates situated in the South of the District will be cut off."

Maternity Benefits Bill. Read letter to the Collector of the 9th. May, 1925, and the Collector's reply, Ref. No. 2983-D. 1, of the 16th. idem. Mr. Pittock, as Member of the Executive Committee, wished to emphasise the point of view that it was out of place for this Association to express its opinion, the matter having already been placed before the U. P. A. S. I., and asked the meeting to believe that the Executive and or General Committees of the U. P. A. S. I. would, in due course, act in the best interests of all affiliated associations. Proposed by Mr. Cooper, and seconded by Mr. Hardy.

That this matter be left to the Executive Committee of the U. P. A. S. I.

Carried.

Act XIII, of 1859. Read letter from the Shevaroy Planters' Association, dated the 25th. April, 1925, No. 7-25, and the Honorary Secretary's reply to same, dated the 11th. idem.

The Honorary Secretary was directed to refer to the Secretary, U. P. A. S. I., enquiring if it is possible to have Act I extended to this District without interfering with its working in other Districts.

Mr. Pittock kindly undertook to go into the matter when next in Madras.

Welfare Scheme for Workmen. Read letter from the Secretary, U. P. A. S. I., of the 2nd. Mry, 1925. No. 1112, and the Honorary Secretary's reply dated the 9th. inst.

No further action was considered necessary.

Correspondence.

Foreign Liquor License. Read letter Ref. No. 3657-25 C—2, of the 11th. May, 1925, from the Collector of Coimbatore, and the Honorary Secretary's reply of the 15th. idem.

Read proceedings of the Collector of Coimbatore, dated the 28th. idem., and noted, with satisfaction, that the liquor license referred to has been duly cancelled.

Tea Statistics. Read letter from the Secretary, U. P. A. S. I., No. 1513, of the 18th. May, 1925. In this connection, the Chairman once more brought to the notice of Members the absolute necessity of replying to Circulars sent out by the Honorary Secretary with the minimum of delay, failing which it was impossible to obtain information asked by the U. P. A. S. I. and others.

Tea Cess. Read letter from the Secretary, U. P. A. S. I., No. 89, of the 2nd April, 1925.

Telephones. Mr. Jones enquired if the Association had any further information with reference to this matter, and the Honorary Secretary was directed to take it up with the authorities.

Election of Office Bearers. Mr. Martin suggested that, subject to the approval of Members present, it would save time if the present Chairman and Honorary Secretary would agree to continue in office for another year. The meeting having no other proposals to put forward, Mr. Simmons and Mr. Sampson were duly re-elected, and expressed their thanks for the honour done them.

General Committee. Voting resulted in the following Members being elected.

Messrs Jones, Pittock, Reilly, Cooper and Johnson.

Representatives on the General Committee, U. P. A. S. I., Messrs Simmons and Sampson.

Delegates to Annual General Meeting of the U. P. A. S. I., Messrs. Simmons and Sampson.

Auditor. Mr. W. J. Siromani.

With a vote of thanks to the Chair, the meeting terminated.

F. SIMMONS,
Chairman.

J. E. SAMPSON,
Hon. Secretary,

U. P. A. S. I. SPORTS CLUB.

Mr. Fulcher has sent the following notice to District Representatives :-
Inter District Cricket at Annual Meet.

Owing to requests for more cricket to be arranged during Planters Meet and also to justify the expenditure of annual upkeep to the Ooty ground - the Committee have decided to do their best to start this Competition from next Meet.

Sir Fairless Barber has kindly offered a Cup to be played for.

The Districts suggested are as under.

Anamalais, Kanan Devans, Wynaad and Nilgiri Wynaad, Mundakayam and Peermade, S. Travancore and West Coast, Coorg and Mysore.

I understand that any district left out such as the Nilgiris, who have players but probably not enough to make up an XI of their own, can join with another district.

I have been instructed by my Committee to write round to districts asking for their views and suggestions, and shall be glad if these can be sent in as soon as possible as, should any re-grouping of districts be necessary, the Committee wish to have sufficient information to be able to do this at Bangalore in August. Suggestions will be welcomed from any members of the Club.

G. W. FULCHER,
Hony. Secretary.

THE COFFEE INDUSTRY IN GUATEMALA.

The following interesting details have been supplied by the Department of Overseas Trade With regard to the exports, all the figures furnished are for the calendar year.

CLEAN COFFEE.

To	1923 Centals	(of 100 lbs. Spanish).	1924 Centals.
Austria ...	14,274.68	...	—
Belgium ...	—	...	208.26
British Honduras ...	103.35	...	42.48
Chile ...	2,924.94	...	150.99
Colombia ...	130.22	...	—
Cuba ...	15,869.16	...	1,026.50
Denmark ...	1,613.10	...	1,045.83
France ...	946.67	...	16,302.46
Germany ...	173,962.36	...	361,582.44
Holland ...	26,066.48	...	58,413.50
Honduras ...	230.59	...	1,142.97
Italy ...	1,265.61	...	1,896.57
Japan ...	75.89	...	—
Mexico ...	150 —	...	—
Norway ...	1,569.75	...	6,928.59
Panama ...	149.50	...	—
Spain ...	543.44	...	473.75
Sweden ...	8,759.49	...	23,888.14
United Kingdom ...	14,240.20	...	22,628.30
United States America.	658,294.26	...	384,637.44
TOTAL ...	951,469.69	...	880,368.22

SHELL COFFEE.

Germany ...	3,262.69	...	6,202.80
Holland ...	664.65	...	180.04
United Kingdom ...	2,105.90	...	2,739.58
United States America.	1,127.12	...	421.21
TOTAL ...	7,160.36	...	9,543.63

About 72% of the crop was shipped from Pacific ports (Champerico 54% San Jose 18%) and the remaining 28% from Atlantic ports (Puerto Barrios, 20% and Livingston 8%).

Reliable information regarding the present crop, 1924/5, is difficult to obtain, but it is calculated that the quantity available for export will be approximately 900,000 centals. Part of this year's crop was shipped during the months of October, November and December 1924 ; consequently the figures for 1924 include this share.

Exports to the United Kingdom are still far below their pre-war level. In 1913 the quantities shipped to the United Kingdom amounted to

62,208	centals	Clean	Coffee
22,167	„	Shell	„

The failure of British coffee importers to regain the position they held before 1914 in regard to imports from Guatemala may be attributed principally to the dislike of the native planters to ship produce on consignment owing to the losses suffered and delay in obtaining accounts sales during the post-war slump.

In addition the British firms that formerly financed the crop in a fair proportion before the war were obliged to limit their operations during that period, and the business passed almost entirely into the hands of American importers. The prohibition to import coffee during the war forced other European buyers, chiefly from the Scandinavian countries, who were accustomed to draw their supplies from the London market, to establish direct connections with exporters from Guatemala.

British firms established in Guatemala inform that the principal difficulty in securing shipments to the London market consists in the obstacles encountered in selling for forward delivery due to the fact that types for Guatemalan coffee on which these sales could be based do not exist. It appears that in all the principal centres where Guatemalan coffee is handled, these types exist and form the basis of the transactions with arbitration clauses in the contracts in case of dispute as regards quality. As most of the coffee shipped is bought by local firms and sold by them for future delivery, it would be necessary for the London trade to establish types as is done in other parts of the world in order to recuperate its pre-war position.

The exports of coffee from Guatemala to the United Kingdom consist at present chiefly of the "Vera Paz" and "Maragotype" types, both of which apparently are sold for home consumption.

With regard to exports to foreign countries, it will be seen that the trade is slowly reverting to its pre-war channels *i.e.*, that Germany is again becoming an important factor in the coffee trade, whereas during the war and until 1923, practically the entire crop was shipped to the United States, principally to the San Francisco market.

The increase in exports to France during 1924 may be attributed to the commercial treaty signed between Guatemala and France in 1922, whereby Guatemalan coffee was granted the minimum rate of import duties in France. As this treaty has been denounced, it is probable that in the future exports to France will decrease to the former low level.

The 1924/5 crop is of relatively poor quality owing to the unfavourable climatic conditions ruling during the past year.

Recently the Guatemalan Government decreed a surtax on the export duties on coffee on a sliding scale according to the price ruling at the time of export. The surcharge amounts to \$0.50, which added to the former rate of \$1.50 per cental makes a total \$2.

CEYLON TEA AT WEMBLEY.

The interior of the Ceylon Pavilion at Wembley has been completely altered this year. The splendid cedar panelling, which divided up the pavilion last year, has this year been laid on the walls of the whole pavilion, and the centre part given up to a tea cafe, where cups of the famous Ceylon tea may be drunk in characteristic Ceylon surroundings. The two side wings of the pavilion are devoted on one side to the collection of Ceylon gems and jewellery, displayed by Mr. N. D. H. Abdul Caffoor, of Colombo. This collection of gems is valued at £80,000. The other wing of the pavilion is devoted to a display of the tea and rubber industries of the island. Small boxes of Ceylon tea can be bought on the spot. Two large dioramas show the areas of the island devoted to these industries. The famous "Trevassa" Lifeboat is again on view outside the pavilion.

—*The Produce Markets Review.*

DISTRICT NOTES.

South Travancore.

KALTHURITTY VALLEY.

On Estates, where the fabric of our lives and interests is so intimately interwoven with the weather, perhaps it would not be out of place to preface my notes with some remarks on the meteorological conditions as affecting this Valley during the merry month of May.

To the Tea Planters the frequent showers were probably appreciated and their time has been fully employed in pulling off the abundant flush. To the Rubber Planters however the unusually clouded skies and rain, often at inconvenient periods, has been a source of annoyance, as the harvesting of latex, being fair weather work, is easily thrown out gear by actual or threatened showers.

The Rubber Men have also had a busy time spraying their young clearings with Bordeaux Mixture against the dieback of the apical

buds caused by *Phytophthora Meadii* which is prevalent in the prolonged wet weather of the South West Monsoon. Although in a previous note I mentioned that work with the Hayes Duplex Sprayer might almost be considered a pleasure, I have no doubt that all engaged in these operations will breathe a sigh of relief when this slow and laborious work is completed. The great care that has to be exercised to ensure that every leaf gets its quota of solution and that the topmost branches are not neglected adds immeasurably to the work.

The Valley Club terminated a successful season on May 17th the majority of the members being present. The final of the open singles was played between A. P. D. Lodge and F. G. Millar when Mr. Lodge had no difficulty in demonstrating his superiority winning 6-0, 6-4 and thus becoming the first holder of the Challenge Cup kindly presented by Mr. Patrick Alexander.

The following competed, Messrs Alexander, Bowling, Feltham, Gillespie, T. G. Glen, Hoare, Kirkby, Lodge, Millar and Ure.

The resuscitation of the Club, which has proved a popular rendezvous during the dry weather must, I am sure, have been a source of gratification to Mr. L. G. Knight who was primarily responsible for once again getting the Club under way. Perhaps it is not too much to hope that out of the ashes of the present grass and bamboo structure may arise a permanent building worthy of this prosperous valley and the premier planting company of Southern India.

The present month has seen a great many changes in this part of the world. Mr. L. G. Knight and I. N. James have gone off on furlough. Mr. Hatherall from Isfield to Chengara Estate, Mr. and Mrs. Lodge from Florence to Isfield. Mr. Branson from furlough returned to Florence Estate, Mr. Jodrell from Venture to Ambanaad, Mr. and Mrs. Jackson from furlough returned to Venture Estate, Mr. Gillespie from Boyce to the newly formed Nedumpara Estate and Mr. Davidson from Florence to Kaliyar.

The Nilgiris

Let us start with the weather, the standard topic of conversation at this time of the year. Everything has been unusual this season, as we have had ever increasing showers which with short breaks have gradually merged into the regular Monsoon; and there are still heated discussions going on as to when the latter really commenced. Now there never can be a fixed date for the setting in of the Monsoon, for be it known that our word Monsoon is the Anglicised corruption of the Urdu and Arabic "Mousum", which merely means "season". So, "barsat ka mousum" in Urdu literally signifies

"the season of rain", which may be said to commence at any time towards the end of the hottest weather, when the South West air current starts pushing all other air currents out of its way. During this process of establishing itself many thunder storms take place, which are erroneously called by local names, but are intimately connected with, and form integral parts of the South West season of rain. So correctly speaking, rain or no rain seasonable Monsoon weather begins as soon as the moisture laden air from the south west advances over India towards the north east.

Our social season is now so short, -15th. of April to about the 15th, July, that it is impossible in the space at our disposal to Chronicle all that takes place during this hectic period. Besides the exciting Race Week already described in other papers, there was a very delightful Fancy Dress Race Ball on May the 16th. at which many unique and charming costumes were seen; but as no record was kept of the festive occasion, neither the costumes nor their wearers can now be described. It is suggested that in future Fancy Dress Balls the entrance tickets should have a blank space for the name of the ticket holder and his or her dress, and thus a complete list for general information could subsequently be published. This is done in other hill stations, and why not here? On the 21st. May the Ooty Dramatic Society staged the well known comedy "Eliza Comes to Stay" which was played three times to the fullest houses Ooty has ever seen. When all were so good it is almost invidious to mention anybody in particular, but the palm was unanimously accorded to the two leading characters of Eliza by Miss Leslie-Rogers, and Sandy her guardian by Mr. Colthurst: both of the planting community. The Nilgiri Agri-Horticultural Show took place in the Government Botanical Gardens on the 30th. May, and attracted large crowds from all parts of the district. It is to be regretted that more planters do not turn up on these interesting occasions, as besides the actual pleasure of the show itself, much may be picked up in the way of practical information regarding the growing of flowers and vegetables, the breeding of cattle, and other such kindred subjects.

This season has been remarkable for the number of wild animals especially tigers and panthers, that have been seen and heard of in around Ooty. One tiger was killed within a mile of the station; while another was actually shot in the compound of a house near the Lake. A resident met one face to face on the Snowdon water channel, and yet another scared an invalid lady resting under a tree near her house. A panther was shot a few days ago at the Marlimund Reservoir, and panthers' pug marks have been seen in many places. Evidently the feline tribe are up for the season, and the planter with shikaring proclivities would be well rewarded by spending a few weeks on these Olympian Heights.

In conclusion, the following sapient question put in a certain Legislative Assembly by one of our would-be Governors, will no doubt help our readers to realise the profundity of Indian politics. "Have the Government", asks our experienced Administrator, "ever taken a census of the total monkey population of India? If so, will the Government be pleased to state how the ratio of monkeys to human beings in India compares with a similar ratio in England and Germany?" Some thoughtful planter with experience of anthropoid apes in his neighbourhood, will it is hoped enlighten the ignorant, and inform us whether it is possible for the present day monkey to ever evolve into a rational politician?

U. P. A. S. I. SPORTS CLUB.

DEWAR GOLF AND SPENCER BILLIARD CUPS DURING

Bangalore Annual Meeting.

Entries. Should be sent into me previously at this address. Final entries will close at West End Hotel at 6 p.m. on 16th August.

When entering for golf please state your handicap either in England or in this Country. If the latter, please give name of Club and number of holes of the Course.

Do not forget to bring your Clubs.

Spencer Cup. Two suggestions were made after the tournament last year. (a) That the tournament should be a handicap one, and (b) That 'fleas' or Russian billiards be played instead of billiards.

I propose that this be decided by vote, and when sending in your entry, kindly say which you prefer:—

(a) Open billiards. (b) Handicap billiards. (c) 'Fleas' in place of billiards. If 'fleas' has it, pairs will have to enter from Districts, and Messrs. Spencer will be asked to present a pair of cues or other suitable prizes in place of a Single Cup. (Handicap billiards will be difficult.)

Woodbriar Estate, }
DEVARSHOLA P. O. }
12-6-1925. }

G. W. Fulcher,
Hon. Secretary

The Planters' Chronicle.

Recognised as the Official Organ of the U. P. A. S. I., Incorporated

Secretary's Registered Telegraphic Address: "UPASI," MADRAS.

Mr. EDWIN VINCENT.—*Managing Editor, Coimbatore,*

Telegraphic Address:—"CHRONICLE," Coimbatore.

VOL. XX No. 25]

JUNE 20TH 1925.

[PRICE AS. 8.

CONTENTS.

	PAGE.		PAGE.
Notice	407	The Value of Soil Analysis	411
U.P.A.S.I. Annual General		Letters to the Editor	415
Meeting	408	Rainfall in the Planting	
The Nilgiri Planters' Assn.	409	Districts	... 416

PRICE OF "A" COFFEE.

BY CABLE LONDON, 12th June, 1925.

141s./—per cwt. Market Quiet.

NOTICE

We have to announce that beginning with the issue of 4th July next the "Planters' Chronicle" will be published at Madras instead of Coimbatore as at present. Will Honorary Secretaries of District Associations and correspondents generally please note that all contributions for the issue of 27th June should be despatched so as to reach us at Coimbatore at latest on Thursday 25th June. Subsequent to that date all communications should be addressed to :—

THE MANAGING EDITOR,

"The Planters' Chronicle"

C/o U. P. A. S. I.

P. B. 155,

MADRAS.

UNITED PLANTERS' ASSOCIATION OF SOUTHERN INDIA (INCORPORATED).

The Thirty-second Annual General Meeting will be held at the
Mayo Hall, Bangalore, commencing at 2-30 p. m.
on Monday 17th August 1925.

Preliminary Agenda.

Ordinary Business.

1. The Chairman's Address.
2. Report of the Executive Committee.
3. Accounts.
4. Election of Chairman and Auditors.

Special Business.

5. Incorporation of District Associations.
6. Planters' Chronicle.
7. U. P. A. S. I. Sports Fund.
8. U. P. A. S. I. Buying Agency.
9. Affiliated Associations.

Legislation.

10. The Planting Member.
11. Labour Laws.

Communications.

12. Harbours.
13. Railways.
14. Roads.

Labour Department.

15. The Director's Report.
16. Labour Rules.
17. The Labour Department.

General.

18. Tea.
19. Rubber.
20. Coffee.

Scientific Department.

21. General.
22. Mycologist's Station.
23. Tea Specialist and New Experimental Station.
24. BUDGET & FINANCE.

Attention is drawn to Rule VI under which, no subject other than those on the published Agenda shall be discussed except with consent of the Meeting, and no original proposition shall be made without the consent of the Meeting unless thirty days notice stating objects and reasons has been given to the Secretary.

It is hoped that members will assist the Chairman in conducting the Meeting by giving as much notice as possible through the Secretary of all original propositions they propose to bring forward.

THE NILGIRI PLANTERS' ASSOCIATION

Proceedings of the Eighth Annual General Meeting of the Nilgiri Planters' Association held on Thursday 4th June 1925 at 11 a. m. in the Coonoor Club

Present—Captain E. G. Windle, M.L.C., (Chairman) Messrs. C. St. John Ives, J. Lornie, L. F. Lake, C. R. Clayton-Daubeny, R. F. Bryant, R. J. Layard, W. E. Forbes, W. Ward, A. K. Weld Downing, N. J. Stanes, J. B. Vernede, C. B. Vernede, J. P. Waldeck, J. Erskine, E. E. Fennell, Sir Robert Stanes, and C. W. Hayne (Hon. Secretary).

Visitors.—C. D' A. Crofton, Esq., I.C.S., (Collector, Nilgiris).

Proceedings.—Notice calling the meeting was read.

Minutes of previous Meeting were read, and confirmed, after having answered Mr. Downing's question on the minute dealing with the Lawley Hospital.

Disafforestation of land. The Chairman went very fully into this and explained matters. The Hon. Secretary was instructed to obtain particulars in the form of maps showing boundaries and forest land from all members desiring the disafforestation of land.

Election of Member for the District Board. Mr. N. J. Stanes was Elected Member in the place of Mr. Dandison.

Delegate's Report. The Delegate's Report on the Control Committee held in Coimbatore on 11-5-25 was read and commented on. On conclusion of the discussion Mr. Ives was asked if he would stand as active member for the Nilgiri Planter's Association on the Control Committee. He agreed to do so.

Labour Act. This heading became included in the discussion that took place on the Delegate's Report and in its place was substituted "*Labour Draft Rules*". These were read and discussed and it was decided to pass them with a few modifications.

Miscellaneous Correspondence. The gist of letter from President District Board to Hon. Secretary re non-payment for treatment of relapsing fever cases. On going into the matter it was found that the matter had been settled.

Letter from Secretary U.P.A.S.I. to Honorary Secretary as to what quantity of Tea would be supplied from members of the Nilgiri Planter's Association was put before the meeting. Decided to send list round to those present asking them to state quantity they would be willing to supply.

Letter requesting that tea waste and fluff from all members of the Nilgiri Planter's Association be supplied to a private firm was put before the meeting. On discussion the meeting was not in favour of the request.

Letter from European Association regarding donations over and above the Annual Subscriptions together with Bankers' Forms were put before the meeting. No Bankers' Forms were filled in or requisitioned.

Honorary Secretary's Annual Report and Accounts. The accounts were passed round and adopted.

The Honorary Secretary read his report as follows:—

Mr. Chairman and Gentlemen.

I have the honour to bring before you my Annual Report for the year ending 31-3-1925.

Meetings. These have generally been held quarterly. Two extraordinary general meetings have been called.

Attendance. This has been an average of 11 members. The highest number at any one meeting being 16.

Membership. We have lost some members and gathered in others. Singara and Sophia have dropped out completely. Sophia has been a member for very many years. Honnimetti and Attikan have transferred their allegiance to the Mysore Association. The new members are Kairbetta (G. E. Martin), Ebanaad (Col. Ward), Havukal (E. E. Fennell), Coonoor Tea Estate (C. R. Clayton-Daubany), Erinkadu (Capt. Bryant) Somerdale (T. Colthurst).

The total being 37.

U. P. A. S. I. Revised Rates. In looking up my Annual Report of last year I see I commented on this. This year it has been changed and gone under another heading.

Scientific Dept I have no comments to make here as the Dept. has hardly had time to find its bearings. Subscriptions have been entered for both Coffee and Tea and most of them have been collected.

Thefts. This year, I think I am right in saying, has been a record in the way Tea seed and plants have been stolen both from nurseries and from clearings. The D. S. P. was written to on the subject, he also attended one of our meetings. May we see good results from his investigations.

Roads and Communications. Last year I note I was hoping to see some of our roads in the Nilgiris classed as Trunk roads in the near future, but I understand from our Chairman that there is no hope of this at present. In spite of the great efforts made by the District Board Engineer a large amount of work is still required but

Government has apparently been unable to provide the necessary funds so far. The District is quite unable to pay for the necessary heavy expenditure and further deterioration of our district roads seems likely.

Accounts. These have been audited and passed. I lay them before you. I am glad to say practically all arrears of subscriptions have been settled.

Mr. C. R. T. Congreve having resigned his seat on the M. L. C. in March last our Chairman Capt. Windle was asked by the General Committee of U. P. A. S. I. to stand as planting Member and was unanimously elected.

Labour Has been generally sufficient and in some parts plentiful

In conclusion gentlemen I thank you for having given me the honour of being your secretary for the past two and a half years and as this brings me to the close of my term of office I herewith tender you my resignation.

Office Bearers. The following Office Bearers were elected by Ballot.

<i>Chairman:</i>	<i>Hon. Secretary:</i>	<i>Committee:</i>
A. K. Weld Downing.	C. W. Hayne.	Messrs. { Windle, Ward,
		{ I. B. Vernede,
		{ Stanes, Forbes.

The absence of the representative of the S. I. R. who was to have discussed railway matters with members of the Association was regretted

With a vote of thanks to the Chair and to the Secretary Coonoor Club for the use of the room the meeting terminated.

E. G. WINDLE CAPT.,

Chairman.

C. W. HAYNE,

Hon. Secretary, N. P. A.

THE VALUE OF SOIL ANALYSIS.

On the question of soil analysis we find agricultural opinion sharply divided. On the one hand there is the fast disappearing class of old-fashioned farmer, who has cultivated his land according to local customs in the fashion of his forefathers, and refuses to admit the possibility of improvement. At the other extreme is to be found a smaller but increasing class who pin their faith on soil analysis, and look to the chemist to solve all their problems. The older class of man is of course disappearing more or less rapidly with the rise of a younger generation more liberally educated in all respects. The second, however, tends to increase, probably through the bad effects of a partly absorbed education in modern methods.

Both views are ridiculous in the light of our present knowledge, and since soil analysis forms an ever-increasing part of the work of propagandists and, indeed, concerns all manufacturers of artificial

fertilisers, we may well devote some little time to the examination of the present position.

The author, though an analyst himself, must confess to a sneaking preference for the older type of obstinate farmer who will brook no interference from scientific experts. At least with such a man we do know how we stand. With the other type, the man is convinced of the value of a soil analysis as a complete solution of all his troubles, and no amount of argument will alter his conviction. Should you gently imply that he is perhaps expecting too much, or that you cannot stake your reputation on an analysis of his soil and a forecast of his yield of oats or potatoes from the application of a given fertiliser, he thinks you a fool for your pains and seeks his information elsewhere. Unfortunately, he too often finds it, for there is always some one to be found who will serve up an analysis on demand and glibly proceed to advise the best method of procedure.

What is A Soil Analysis.

In former days, in fact since Liebig's great work on agricultural chemistry, it was naturally assumed that soil analysis, by establishing the quantity of certain substances in the soil, would indicate deficiencies which could be remedied by adding the necessary chemicals. Theoretically the reasoning seemed perfectly sound. A plant on analysis is found to be composed of certain materials, compounds of metallic and non-metallic elements, together with much nitrogen, carbon, and hydrogen. By growing plants in water or sand cultures and omitting certain constituents of the nutrient solutions (a practice still employed at the present day), it was possible to detect which substances were essential to growth. Surely then if the soil be analysed in a similar manner and be found to be deficient, say, in potassium salts, what else could be done but to remedy the deficiency by the addition of some potassic compound?

For many years soil analyses, lengthy and tedious, were carried out chiefly, one imagines, as a matter of scientific interest and without practical application, as may judged from the example given below:—

Insoluble silicates, etc.	...	79.30
Alumina	...	6.41
Lime	...	2.10
Ferric oxide	...	3.84
Magnesia	...	0.52
Soda	...	1.20
Potash	...	0.71
Carbonic Acid	...	0.07
Sulphates	...	0.06
Chlorine	...	0.03
Phosphoric acid	...	0.26
Organic matter, water, etc.	...	6.50

100.00

Similar analyses were carried out for enterprising land-owners, probably in the pious hope that they were doing the correct thing and that some benefit would ensue. In many parts of the country I have found a tradition of some "professor"—they are all professors to the farmer—who had been carrying out experiments and analyses in the district. Modern soil analysis however is a vastly different matter. For practical purposes it is only necessary to determine the amount of the principal fertilising constituents, nitrogen, phosphates, and potash, together with the lime content or lime requirement, and the amount of organic matter. More rarely other constituents have to be determined, for example when a soil is notoriously sick or infertile.

Importance of Mechanical Analysis.

This chemical aspect is but one part of the problem. All soils are composed of solid particles of mineral matter of different sizes, and it is these differently-sized particles and the proportions in which they occur that determine to a great extent the type of agriculture which can be most profitably carried on in the district.

The size of the particles determines to an enormous extent the water supply to the plant. If, as is at present assumed, the plant can absorb mineral substances only when they are in solution, it is obvious that the ease with which the water can move about in the soil is of great importance. Most of the major operations of cultivation, such as ploughing, harrowing, rolling, are of importance chiefly in so far as they affect the water supply. The determination of the size of the soil particles, the so-called mechanical analysis of the soil, is in many instances a most important part of modern soil analysis.

Again, in recent years, the idea that soil is a lifeless clod has given way before the advance of science. Biologists have established without question the fact that the soil is teeming with life; bacteria and fungi of many species flourish; both may be beneficial or harmful to cultivated crops.

When complete, modern soil analysis involves:—

(i) A chemical examination of the soil, to determine the fertilising constituents present and their amount, and the presence or absence of deleterious substances.

(ii) A mechanical analysis to determine the size and distribution of the soil particles.

(iii) A biological examination to determine the species of bacteria present, whether they are injurious or otherwise, and the general biological conditions in the soil.

So complete an analysis can rarely be attempted. It is exceedingly lengthy and tedious and requires elaborate technique, and is therefore costly. To be of the greatest value it needs to be interpreted in the light of local conditions of climate and geology. The result of the analysis of single samples must be interpreted by comparison with other samples from similar soils in the neighbourhood, and can therefore be fully utilised only when a soil survey of the district is available. Unfortunately in this country the progress of soil surveys is almost imperceptibly slow, and for this reason alone a complete analysis is rarely of practical value.

There is no need to rush to the opposite extreme and condemn all analysis as useless. Certain soil constituents are readily determined, some physical properties are easily measured, and within due limits soil analysis is of great value not only to the farmer but also to the vendors of fertilisers and feeding-stuffs.

Lime And Soil Acidity.

First place must be given to the determination of the lime content or lime requirement of the soil. Fortunately there is little difficulty in determining by standard laboratory methods the amount of calcium carbonate in the soil. A little more difficult, but still of enormous practical value, is the determination of the lime requirement, *i. e.*, the amount of calcium carbonate or other form of lime required to bring the acidity of the soil to the optimum for any particular crop. The degree of soil acidity itself, though its origin and precise nature give rise to much dispute, can be determined by laboratory methods with sufficient accuracy for all practical purposes.

Frequently such determinations assisted by full details of the "life history" of the field for the preceding two or three years are sufficient to enable an experienced soil analyst to make general recommendations of great value to the cultivator and to the fertiliser merchant. As regards the latter it cannot be too strongly emphasised that the sale of the most suitable fertiliser for the given conditions is of the utmost importance. No factors so control the nature and composition of the fertiliser required as soil acidity, and the presence or absence of lime.

A further important factor is the nature and amount of the organic matter present in the soil. The estimation of the total nitrogen, in some instances of the nitrates, together with the determination of the amount of the organic matter present in the soil, often throw much light not only on the chemical aspect of the soil concerned, but also on the water relations of the soil. A step further, the mechanical analysis, adds still more to our knowledge of the water relations.

Mechanical analysis, however, is of the greatest use in forming an idea of the possibilities of land development, *i. e.* its suitability for new crops or crops unusual to the district. The suitability of soils for the growing of sugar beet, where the climatic conditions are favourable, may readily be determined by such means.

As regards the determination of other plant nutrients, or even poisons, the value of such work depends entirely upon the special conditions. Here should be emphasised the supreme value of a personal inspection of the land in question. This, or as second best a full account of the conditions, will dictate the course of the analysis. It is impossible to lay down hard-and-fast rules as to what should be determined and what omitted. Every case needs different treatment.

Nowhere is the old saying that the middle course is best more true than in the question of soil analysis. Agriculture is man's oldest industry, and it is more likely in this than in other work that traditional methods have proved their worth: but agriculture, like all industries, must take heed of the scientific progress of the last century, and may well profit by the proper use of soil analysis.—*Indian Scientific Agriculturist.*

LETTERS TO THE EDITOR

(The Planters' Chronicle is not responsible for the opinions of its correspondents).

Dear Sir,

U. P. A. S. I. Sports Club.

I shall be much obliged if you will publish this letter in an early issue of the Chronicle. Colonel Harper a brother of Kenneth Harper, of 'Peter Pan' fame has offered a Golf Cup to the Planters to be competed for in Planter's Week between teams representing the Planters and members of the Ooty Golf Club.

He makes one condition, and that is that the Water Scheme on the Ooty links comes into being before next Meet. I attended the Annual Meeting of this Club on 29th. May, and was given to understand by the President that there is every likelihood of the scheme going through, and that I would be definitely informed after their next Committee meeting.

Colonel Harper has been suitably thanked for his offer and there is no doubt that it will be much appreciated by members of the Sports Club.

The reason Colonel Harper gives for the condition is, that without water laid on during the dry weather months on the Ooty links, golf is'nt worth playing.

Colonel Harper was present at our last Meet, and the enjoyment he derived from it, is no doubt partly responsible for the very kind offer that he has made to the Planters. He also noticed that 'Inter District Golf' was the most poorly represented event of the whole meet, and therefore the real reason of his offer. We can only hope for better entries next year.

Woodbriar Estate,
Devarshola P. O.
Dated 13th June 1925. }

Yours faithfully,
G. W. FULCHER
Hon. Sec.

BANGALORE—CENTRAL HOTEL, "The best in the Station".

RAINFALL IN THE PLANTING DISTRICT.

NOTE.—It must be understood that in some cases these figures are obtained from one Estate only in the district named and do not necessarily represent the average for that district.

	For the Week Ending 25th April 1925.	For the Week Ending 30th May 1925.	For the Week Ending 6th June 1925	For the Week Ending 13th June 1925.
Yercaud	2.09	6.30	0.66	0.26
Pollachi	1.79	2.22	0.10	Nil
Bodinayakannur	Nil	2.04	N.R.	0.57
Manjeri	1.67	8.80	3.42	0.77
Nilambur	N.R.	3.36	2.70	N.R.
Vayitri	3.79	4.89	0.84	0.90
Manantoddy	1.61	5.21	3.00	0.80
Cochin	4.43	15.94	4.64	1.24
Gudalur	1.81	5.89	2.52	0.20
Naduvattam	0.24	7.24	2.01	0.43
Ootacamund	3.00	7.24	0.37	1.20
Coonoor	1.14	4.85	0.10	0.73
Kotagiri	1.07	3.34	0.64	0.54
Mundakayam	2.62	19.66	12.95	1.61
Somwarpet	3.43	2.51	1.12	0.05
Kalthurithy (S. Trav.)	2.12	10.18	2.87	2.21
Peermade	1.95	12.98	5.23	3.93
Vandeperiyar	2.03	4.04	N.R.	N.R.
Chittavurrai (High Range)	From 1st April	6.30	0.26	1.40
Kalaar (High Range)	4.98	9.60	4.62	1.87
Billigirirangans	N. R.	9.01	0.21	0.17
Mooply Valley	1.26	11.33	3.38	0.76
Dataypore (Hassan)	4.34	6.17	0.48	0.19
Mndis (Anamallais)	From 1st April	13.96	4.12	2.40
Pachamallai (Anamallais)	...	13.26	2.87	0.33
N. R. = No Return.	...	...	...	...

The Planters' Chronicle,

Recognised as the Official Organ of the U. P. A. S. I., Incorporated.

Secretary's Registered Telegraphic Address: "UPASI," MADRAS.

Mr. EDWIN VINCENT.—Managing Editor, Coimbatore,

Telegraphic Address—"CHRONICLE," Coimbatore.

VOL. XX No. 26]

JUNE 27TH 1925.

[PRICE As. 8.

CONTENTS.

	PAGE.		PAGE.
Notice	... 417	Tea from Grower to Consumer	427
Retrospect	.. 417	Rubber Prices & Possible	
Estate Labourers' Wages	... 419	Output	... 428
Planting Company News	... 421	Rainfall in the Planting	
Coffee	... 425	Districts	... 432

NOTICE.

We have to announce that beginning with the issue of 4th July next the "Planters' Chronicle" will be published at Madras instead of Coimbatore as at present. Will Honorary Secretaries of District Associations and correspondents generally please note that all contributions should be despatched in future to :—

THE MANAGING EDITOR,

"The Planters' Chronicle" C/o U. P. A. S. I.
P. B. 155, MADRAS.

RETROSPECT.

With this issue of the *Chronicle* the present Editor breaks a connection with the paper which has lasted, with one short intermission, for a period of six and a half years. Three years ago we wrote the following sentence in an article on the opening page of the *Chronicle* "..... with the continuance of the Head Office at Coimbatore it has become imperative that the *Chronicle* should be printed here." The transfer from Bangalore in April 1922 was thus made for the reason stated, and the subsequent transfer, last year, of the Head Office to Madras must eventually have necessitated the change that is taking place to-day. No one will deny that it is a sound reason for the change and we confidently look forward to an increased sphere of utility for the paper when our successor has settled down, in the new milieu, to his task.

So much for the change. Going back to the writer's connection with the paper, this was first made in January 1919 and we can still remember very vividly with what trepidation we ventured to put our initials to our first article. It was written round the question of

rates of pay on Assam Estates as compared with those ruling in Southern India. Since then we have roamed the full gamut of journalistic endeavour in this particular field. Poetry, fiction, review, the leading article, scissors and paste, all have served their turn, and if in their affection for us, as we once pointed out, our planting friends have dubbed us "Comic Cuts" well, they are privileged people, and we have learned to appreciate in the course of six and a half years, the value of their friendship.

It is the relinquishing of that close, almost personal, touch that grieves us. We have cherished it is true the familiar green covered issue, and we shall part with this child of our dreams with something more than simple regrets. It is indeed, with us, a considerable bereavement, but it is at the same time secondary to what it has brought us, the friendship of a wide circle of planting friends.

It is perhaps only natural that at a moment like this one should feel inclined to look back over the days of the past. They seem a long way off those early days of our connection, such a short time ago in reality. The changes which have taken place in U. P. A. S. I. matters have very naturally a first place in our thoughts. Late in 1918 the possibility of closer relationship with the United Planters' Association was as remote as can be imagined, yet early in the New year we found ourselves alongside that inspiring taskmaster, the new Secretary, deep in the turmoil of the reorganisation scheme, in the midst of the chaos involved by the transfer of Headquarters to Coimbatore from Bangalore. What days they were, a new U.P.A.S.I. a new labour department, a new Chronicle, a budding scientific department; what dreams we had and how we worked to make them come true. It was probably inevitable that the parent Association should gravitate towards the capital of the presidency, In a way it would perhaps have been better had the transfer from Bangalore been made direct to Madras instead of via Coimbatore. The short sojourn here on the other hand had its value. There is no doubt that during its stay in Coimbatore a much larger number of planters than was previously the case, paid visits to Headquarters, and was thus able to gain a better insight into the internal working of the Association and its many activities. In fact, paradoxical as it may seem, the greater proximity of the association was the cause of its eventual remoteness. It came to Coimbatore so that planters could have a peep at it, which they could not do at Bangalore. Having examined it closely they decided it was good enough to be sent to Madras, where let us hope, it has before it a long era of usefulness to the community. It was of course equally inevitable that the official organ should follow the fortunes of its parents. For a time it was not feasible and the system in force was left undisturbed. The paper undoubtedly suffered by the change, the loss of its natural source was bound to make itself felt eventually. In short it is not possible to divorce the *Planters' Chronicle* from the United Planters' Association, and although the immediate reasons for the present change are not to be found in this fact, the early reunion of the paper and the Association was inevitable.

We take this opportunity of expressing our thanks to our readers for their forbearance and very real sympathy with our endeavours during the period of our Editorship. We feel sure that our successor will find in the planting community that same desire to help, the same ready response which it has been our fortune to receive and we will close on this note, that the future of the paper may be assured by this co-operation between those responsible for the issue and those for whose benefit it is intended.

ESTATE LABOURERS' WAGES.

Rao Sahib Arulanandam Pillai, Agent of the Government of India in Malaya, delivered an interesting address on the question of Indian labourers' wages before a special meeting of the Kuala Langat District Planters' Association, on May 11. Mr. Pillai, says "The Tin and Rubber Journal", is a well-balanced, kindly Indian gentleman eager to be of service not only to the Indian estate labourers employed on the rubber estates in the F. M. S., but also to the planters who employ these Indian labourers, and since he has been in Malaya his influence has been all for good. In his address to the Ulu Langat planters, Mr. Pillai opened by discussing the question of the cost of living of an Indian estate labourer in this country. He said that the cost of living of an Indian labourer in moderate comfort—comfort compatible with his station in life—is in the neighbourhood of eight Malayan dollars and expressed the opinion that any estate labourer compelled to live on less than \$8 would deteriorate and become incapable of efficiently serving his employer. Eight Malayan dollars, according to Mr. Pillai's own showing and figures supplied him by the manager of a well-known estate in Kuala Selangor, are apparently quite sufficient for a bachelor coolie employed on an estate to live on, but this certainly is insufficient for a married coolie and we estimate that a married coolie and his wife, without children, would require \$ 14 a month between them to live on. These figures, however, do not include any possibility of saving and the Indian estate labourer who comes to this country certainly expects to save sufficient money to enable him to return to his own country. It is, indeed, wholly the question of what the Indian estate labourer can save from the wages we in Malaya give him that will continue to induce him to come to Malaya, for every Straits dollar he can save here is worth, at the present rate of exchange, Rs. 1-8-0 to him to remit to his relatives or to take with him to India when he finally leaves this country.

Discussing the wages rate in the Kuala Langat District, Mr. Pillai stated that the total Labour force in that district on December 31, 1923, consisted of 8,696 men, 4,738 women and 1,990 children with 103 men, 311 women dependents and 4,071 minor children according to statistics collected by him from estates employing 100 labourers and over. Of these, all the men drew below forty cents per day and nearly all the women below 27 cents, the wages of

women in the Ulu Langat District being the lowest in the F. M. S., with Klang next with an average of 56 per cent. of women estate labourers there drawing below 27 cents. Comparing wages in the Kuala Langat District with wages elsewhere in the F.M.S., Mr. Pillai gave the following interesting percentages:—

District or State or Colony.	Percentage.	
	Men below 35 cents.	Women below 27 cents.
Kuala Langat	... 31	77
Klang	... 55	56
Kuala Selangor (1923)	... 55	57
Kuala Selangor (1924)	... 13	18
Seremban	... 3	18
Kuala Kangsar	... 8	13
Malacca	... 2	9
Kinta	... 2	6
Kedah	... 1	3
Johore	... 2	3

Reverting to wages in the Kuala Langat District, Mr. Pillai said that planters there could not pay 64 per cent. of their women labourers less than \$ 6 a month, as they were doing, and honestly say that the labourers in their district were happy. He then instanced the recommendation of the General Labour Committee that the basis of an estate labourer's daily pay should be the equivalent of the cost in normal times of a gantang of rice and that Committee's further opinion that a male Indian estate labourer should receive 50 cents a day and female estate labourer 40 cents a day, these rates, of course, applying to able-bodied adult labourers who perform a full day's work. Mr. Pillai next went on to tell the Ulu Langat Planters that they will have to prepare their minds for the introduction of these rates, adding that 22 days work at 50 cents for men and 40 cents for women would give \$ 11 for men and \$ 8.80 for women, this leaving a fair margin for saving. He also took occasion to remind his audience that a dollar does not go much further in Malaya than a Rupee does in Ceylon, but he added that the surplus dollars and surplus cents saved here in Malaya are worth 50 per cent more than the surplus rupees and cents saved in Ceylon. Here Mr. Pillai gave the rates of wages for Indian estate labourers as recently fixed by the Ceylon Government. A man in the low country of Ceylon where rubber is grown, draws 50 cents and a woman 40 cents, a day, in mid-country, where little rubber and much tea grown, a man draws 52 cents and a woman 41 cents, whilst up country, where only tea is grown, a man draws 54 cents and a woman 43 cents. He also reminded his audience of the nearness of India to Ceylon as compared to Malaya. A labourer coming to Malaya either as a Kangany recruited labourer or a free labourer must, if he wants to return to his native village, first save \$ 25 for steamer fare from here to Madras and rail charges both here and in Madras, whereas in the case of the labourer in Ceylon a few rupees are quite enough for his journey home.

Mr. Pillai concluded his address by urging planters in Malaya to revise the wage scale of Indian labourers without delay and we certainly agree that this should be done if only in the interests of the rubber-growing industry of Malaya. With rubber climbing in price as it is doing, we in Malaya will soon require a large number of Indian labourers for our estates, but unless we make the proposition a reasonably attractive one these men will not come to us.

PLANTING COMPANY NEWS.

Rubber Plantations Investment Trust Ltd.,

In the course of his very interesting review of the planting situation, at the Annual meeting of the above Coy. Mr. H. J. Welch the Chairman, speaking on the subject of Tea Prices said:— "Tea prices were on a high level at the date of our last meeting, and, after some fluctuations, the peak was reached at the close of November. Since then prices have declined rapidly, and are now below the rates ruling a year, ago, and, in the case of poor teas, are about 4d. per lb. lower. Supplies available from India, Ceylon and the Dutch East Indies during 1924, are estimated at 703 million lb. and from China, Japan and the smaller producing countries, about 150 million lb., making a total world production of 853 million lb. This is a net increase of production of 28 million lb., which was supplied principally by Ceylon, Java and Sumatra. India produced the same as in 1923, and China and Japan exported about 10 millions less.

I estimate that the world's consumption in 1924 (not merely imports or market absorption) was 817 million lb. This shows an increase of consumption of about 32 million lb. over that of 1923, of which the United Kingdom and the Irish Free State accounted probably for 16 million lb., and the balance was spread over most of the other tea-consuming countries of the world.

Notwithstanding this increase in consumption, however, the production exceeded consumption by 36 million lb. It is not, therefore, surprising to find that the stock in bond at the 31st December, 1924, in Great Britain and Northern Ireland, was 204 million lb., as compared with 165 million lb. at the close of 1923, and that at the close of April this year this had been increased to 217 million lb., as compared with 188 million lb. a year earlier. The improvement in demand from Russia last year, which I estimate at $4\frac{1}{2}$ million lb. in excess of 1923, has continued. The figures are not large, but they show a relatively rapid progression, and Russia has now resumed buying in India, Ceylon, China and Japan. Without any undue optimism, it is reasonable to look for continued expansion in Russian purchases, and, as I have said, consumption of tea appears to be increasing in most of the consuming countries and decreasing in none. It is true the net imports

into the U. S. A. during 1924 were 91 million lb. as compared with 104½ million lb. during 1923, but the average net imports in the U. S. A. for the ten years from 1st July, 1914, to 30th June, 1924, were 99 million lb. It seems, therefore, certain that 99 million lb. is approximately the true average consumption of the U. S. A. over that period, and that last year they reduced their stocks, which had been increased in 1923.

The exceptionally high prices ruling last year, and the subsequent falling market, doubtless both tended to induce buyers to reduce their stocks as far as possible, I believe therefore, that stocks held in all parts of the world, with the exception of Great Britain, are probably lighter than a year ago, and that with any substantial improvement in the market, the present heavy stocks in bond in this country will be materially reduced,

From this last year it was stated that there was a good demand for all but commonest inferior teas, and a warning was given owing to the signs then visible of producers reverting to coarse plucking. Unfortunately, that warning was not heeded in some quarters. As the result of the changed position, it is more than ever necessary that great care should be paid by all producers to careful plucking and manufacture, and if this course is generally followed, supplies will be reduced, and producers no doubt will be able to look forward again to a period of better prices.

Some Rubber Estimates.

With regard to the Rubber Industry, the world's exportable production of Rubber, including wild varieties, in 1924 was 405,000 tons, as compared with 380,000 tons in 1923. I estimate last year's production was about two-thirds of the unrestricted "potential" production of 1925, which, under reasonably normal conditions, I put at approximately 600,000 tons. This "potential" production will increase annually during the next few years as the present immature areas reach maturity.

It is of some importance, I think, to note that of the actual production of the three years 1922 to 1924, Malaya and Ceylon, whose export is restricted by legislation, accounted for a declining percentage, viz., from 65 per cent to 51 per cent., the outputs from the rest of the world increasing from 35 per cent. to 49 per cent. For these three years the exports from the Netherlands East Indies are estimated to have increased from 95,000 tons in 1922 to 152,000 tons in 1924. The dry weight of Dutch native rubber alone produced in 1924 probably amounted to about 55,000 tons against 19,000 tons produced in 1922.

The world's "absorption" of rubber during 1924—and I use the word "absorption" to mean new rubber used in manufactured goods—I place at 470,000 tons, against 430,000 and 390,000 tons in 1923 and

1922. Rubber was absorbed by the United States of America in slightly decreasing proportions over the last three years, viz, 73 per cent. in 1923, and 71 per cent in 1924.

I estimate the probable world "absorption" during 1925 at not less than 500,000 tons, and if the price of rubber in London averages 1s. 6d. for each quarter during the remainder of the "restriction" year the world's "exportable" production for 1925 will probably amount to not less than 470,000 tons.

The reduction of the world's stock of rubber, visible and invisible, continued at an accelerated rate during 1924. In my opinion they were reduced by about 50,000 tons in 1923, and 65,00 tons in 1924, or a total of 115,000 tons during these two years. I estimated that on the 31st December last, the world's stocks of rubber in the hands of producers, dealers and manufacturers, but excluding producers' non exportable stocks, amounted to 205,000 tons, or about five months' consumption. The stocks at the present moment are doubtless much lower, but with the increasing supplies and the fact that we are approaching the quiet manufacturing season, I estimate that the world stocks by the end of this year will be about 175,000 tons, i. e., 30,000 tons lower than at December last.

Combined with the remarkable increase in the world's demands, the Stevenson Restriction Scheme has been of great value in achieving this most important disposal of surplus and unwanted stocks—(hear, hear)—whilst at the same time maintaining a price for rubber which has provided a modest return upon the huge capital invested in the rubber plantation industry.

The Restriction Scheme.

The weekly average price of first-grade rubber, London equivalent, last year was about 1s. 2d per lb. Up till now, for this year, it has averaged 1s. 8d. per lb. Whilst legislative restriction is still necessary, as undoubtedly it is, few, if any, responsible producers are pleased at the rise in the price of rubber above 2s. It is good neither for the producing nor the great manufacturing industries that the price should fluctuate wildly. Most producers would be quite content with a price of about 1s. 6d. until restriction is removed. The blame, however, for the shortage of spot supplies lies neither with the producers nor with the restriction scheme. In the restriction quarter, November-February, the price averaged 1-500th of a penny under the 1s. 6d. which was required to increase the exportable percentage from Malaya and Ceylon by 10 per cent. instead of 5 per cent. The purchase by manufacturers of a quantity of rubber (very small compared with the average world absorption of over 1,000 tons a day) would certainly have raised the average price this 1-500th of a penny. Sixteen thousand more tons of rubber would then have been made available to the market this year alone. The present trouble,

however, will be rectified by the steady operation of the restriction scheme, and producers may rejoice that the gap between "potential" production and actual absorption is gradually being lessened, and that the time is probably not far distant when it will disappear altogether. (Hear, hear).

If the price of rubber in London averages 1s. 6d. for each quarter for the rest of the year, the percentage exportable from November, and next year (1926) the world's exportable production of rubber is likely to exceed the absorption of that year, and manufacturers and others will then have an opportunity of replenishing their depleted stocks.

A Reply to Mr. Hoover.

My attention has been called this morning to a paragraph in the newspapers relating to Mr. Hoover's foreword to the report of the Department of Commerce in the U. S. A., on its special investigation into the complaints of manufacturers that the restriction scheme constituted an intolerable restraint on trade. I have not had the advantage of seeing the full report or the foreword, but I notice Mr. Hoover says: "The producing industries of the world would be much better off in the long run if combinations in restraint of international trade were abandoned on all sides; the stifling of consumption, the stimulation of rival production, the use of substitutes, and the paralysing of industry generally being their ultimate results."

I agree entirely with these principles, and it is interesting to have them enunciated in a country like the U. S. A. which is one of the highest tariff-protected countries of the world—imposing tariffs deliberately to restrain competition by imports with the home industries. But the restriction scheme is not a breach of these principles. It is not a combination in restraint of international trade. One only needs to consider the stocks, supplies and prices which have existed since its inception, to see that it cannot have operated to restrain trade at all. It has reduced unwanted stocks and prevented supplies in excess of demand.

Mr. Hoover anticipates a world shortage of rubber in 1929 or 1930. I suggested to him that if he is right such a shortage would have been much greater without restriction, for many rubber areas created during the over-planting period, and which have been preserved by the restriction scheme, would have been abandoned without. (Hear, hear.),

Further, the rubber producers have spent large sums of money in propaganda to increase the world trade in rubber, not diminish it, and they all will be relieved when demand overtakes the potential supply, and renders the restriction of output no longer necessary (Applause).

Restriction Scheme Still Necessary.

It must not, however, be assumed because of the existing temporary shortage of spot rubber, the present high price and the steadily increasing demand, that the need for restriction scheme has already disappeared, nor that the rubber-producing industry has yet entirely escaped from the disastrous position created by over-planting many years ago, which provided a "potential" supply far exceeding the world's demands at the time the scheme was launched. Only four months ago the industry emerged from a 50 per cent. restriction of Malayan and Ceylon exports, and less than a month ago the exportable allowance was raised to 65 per cent. The average exportable output for last year was not more than 57 per cent. and, as I have said, the average price last year was about 1s 2d. per lb. If the restriction scheme were immediately abolished, I have no doubt prices would fall again to very unremunerative level, and the industry might be thrust back into an acute crisis from which it could only escape, after the lapse possibly of years, by the growing increase in demand. The effect, also, of a sudden abolition upon the labour forces of Malaya might be very demoralising to them if it brought about a scramble for labour. Why should this potent aid to health be abandoned just as the industry is reaching the convalescent stage? As I said two years ago, restriction is a medicine, not a food. We do not wish to live on it permanently. There might have been other means of restoring health, but this one was adopted and is proving efficacious. Let it be trusted to complete the cure. And may we not express the hope that when the cure has been effected, the root cause of our malady, namely, over-planting, may not again be indulged in. Restrictive legislation was a temporary and practical alleviation of an acute condition. When, because we have attained a reasonable equilibrium between demand and unrestricted supply, the restriction legislation can be safely abandoned, then, and only then, can the industry be considered to rest upon a sound and healthy economic basis."

COFFEE.

Privately the market is steady, but in the absence of public auctions there is little of interest to report.

The landings in London last week show a comparative decrease of 350 tons, while the deliveries were 35 tons less than those of last year, and the stock, which has increased 51 tons for the week, shows a smaller relative surplus of 2,334 tons.

The Position in Brazil.

The *Monthly Review* published by the Bank of London and South America, Limited, in its issue for May states :

It is thought that the congestion witnessed in Santos for some considerable time has been caused partially by the "Defence" policy

of storing coffee into the interior of Sao Paulo, for it seems self evident that retaining surplus supplies practically *in situ* has automatically deprived the Sao Paulo Railway Company of the requisite cargo to counterbalance the carriage of goods up the incline between Santos and Sao Paulo. It appears that this enforced reduction of transport had unfortunately been operative too long before its consequence of congestion was fully realised.

It will be remembered that until comparatively recently no attempt was made to carry large stocks in Brazil. New York, Hamburg and Havre were previously not only the chief purchasing markets, but they were also the principal depots where coffee accumulated. In past years this may have been the adoption of the line of least resistance by planters and exporters, but it disclosed a lack of cohesion and co-ordination which has since come into force. However, while crops were then quickly sold and converted into cash, the control of Brazilian coffee prices was obviously in the hands of those who held the stocks. It was specifically in order to counteract this feature of the coffee market that the Federal Government embarked on the policy of constructing large depositories in the interior of the State of Sao Paulo, and probably as much as three million bags were in store there at certain times last year. Even to-day, when the accumulated stock in Santos exceeds two million bags, the several large depositories up country are calculated to contain some two to three million bags, apart from the residue of current crop held by planters. This is certainly a large volume to carry, especially when considered in conjunction with an average value of nearly £6 per bag. Coffee prices have apparently been forced up consistently during the past two years, and to such a high level that foreign merchants are now manifesting a protest by limiting their purchases to bare necessities.

The coffee trade and commerce in the U. S. A. appear to be emphatically opposed to recent high prices, and the restricted operations now emanating from New York are certainly having a depressing effect on Santos prices. On the other hand, since the State Government of Sao Paulo have assumed the "Defence of Coffee," their policy is evidently to maintain, as far as possible, the high standard of prices which has obtained during the past year or two. The long continued decline in the purchasing power of Brazilian currency, with the consequent adjustment of its lower value in respect to cost of production, harvesting, transport, etc., aggravated by diminished crops, due to droughts and pests, constitute an obvious justification for a much higher level of prices than that which obtained in previous years.

Coffee Crop 1925-26.

A well-known expert of long residence and considerable experience in Brazil, Mr. Carl Hellwig, has made a very reasonable estimate on the crop of coffee, which should be forthcoming during the next season, *i. e.* 1st July next to 30th June, 1926. He calculates that nearly 1,000

million trees are to-day providing the berry for market, and subdividing the respective zones fed by the principal railway, all of which direct their cargoes to Santos, the following summary is arrived at:—

Zone of		Probable number of trees.	Estimate production, Bags.
Paulista Railway	...	445,000,000	3,605,000
Mogyana	...	260,300,000	2,200,000
Sorocabana	...	131,600,000	1,490,000
Boagantina	...	21,500,000	250,000
Central	...	45,800,000	275,000
Minas Districts	...	58,500,000	520,000
Total		962,700,000	8,340,000

Less quantity consumed in the interior during the
crop year, say ... 640,000

Therefore the entries into Santos between July
1925, and June, 1926, should approximate ... 7,700,000

The above figures refer entirely to Santos coffee, and do not include Rio de Janeiro, Victoria, or the northern ports.

Mr. Hellwig indicates the probability of a late crop, retardation in the maturing of the fruit being already in evidence, largely on account of the dearth of rain when the trees most needed it.

—*The Produce Markets Review.*

TEA FROM GROWER TO CONSUMER.

Any book on Tea—that great household commodity—must command respect and be welcomed by both the grocer and the general public. The new edition of *Tea from Grocer to Consumer*, by A. Ibbetson, O. B. E., which has been thoroughly revised and embellished with new illustrations and published by Sir Isaac Pitman & Sons in their Common Commodities and Industries series, at the price of 3s. net, is a volume of extreme usefulness to all those engaged in the trade. In this handy little work of some 120 pages, divided into twelve chapters, the author deals in an interesting manner with a description of the tea plant, various methods of cultivation and manufacture, tea in various countries, etc., and gives some sound and useful advice on sampling, buying, tasting, blending, packing and storing. In a clear and concise way, Mr. Ibbetson provides an educational treatise on many aspects of the great tea industry. To the student, as well as to the retail grocer and the young man wishing to make his mark in the tea trade, this book should prove indispensable. There are some 30 illustrations, in addition to a map showing tea-producing countries, and we heartily commend this well-written book to the trade and the general reader.

RUBBER PRICES AND POSSIBLE OUTPUT.

Chairmen's Views.

The rapid advance in the price of rubber has naturally drawn some interesting expressions of opinion regarding the outlook for supplies and prices. The India Rubber Journal publishes several statements that have been made by chairmen of rubber planting companies. While keenly interested in obtaining a remunerative price for rubber, the leading managerial groups are concerned about the disturbing effects of the recent advance, and would willingly see prices much lower.

Sir Stanley Bois.

(Chairman, Seremban Rubber Estates):

Since the beginning of this month, as the result of further heavy deliveries, we have seen a rise to what may almost be termed a panic price, and we cannot look upon the present conditions as in any sense normal. That there will be any real shortage of rubber up to the end of the year I am loath to believe, and I trust that heavier shipments from the East may shortly materialise, and have the effect of reducing the present quotations to a more reasonable figure, as, taking the long view from the producing side, I cannot think it is to the ultimate good of the industry that so sudden and abnormal an advance should have taken place, or, having taken place, that it should last sufficiently long to undermine the confidence that we have with good reason felt up-to-date, that the working of the export restriction scheme would bring forth rubber in sufficient quantity to satisfy all requirements and at a reasonable price per pound.

I cannot look upon the position at the moment as anything but abnormal, and am still strongly of the opinion that our best interests will be served if only we can stabilise the price of rubber, and limit the range of fluctuations within much narrower limits about a point, say, between 1s. 6d. and 2s. per pound

Mr. P. J. Burgess.

(Chairman and managing director, Malaysia Rubber Co., Ltd.):

For the past two years the free stocks of raw rubber have been heavily drawn upon, and the shrinkage of the stock in London down to the present figure of 7,567 tons, which is less than one week's world consumption, has brought home to consumers the fact that higher prices for rubber must be paid to obtain a sufficiency of it. The delay in facing that position and acting upon it, during this year and in previous years, accounts entirely for the present stringency in supply and for what I regard as the unwholesome "rocketing" of the spot prices for rubber in the London market at the present time.

The amount of rubber being bought and sold at these excessively irregular prices at the present moment is probably very small, and the price is an indication rather of the sentiment in the market than an index to the amount of dealings which have taken place at the price of the day.

The future position is not too clear, but I think, in arriving at a judgment as to what the future is going to hold for rubber producers, there are three fundamental factors we ought to keep in front of us, and on which we ought to keep in front of us, and on which we ought to have precise knowledge. The first of these is the probable consumption and demand in 1925 and 1926 (I am taking the two years only); the next one is the probable releases of supply which will come during those two years under the Restriction Act; and the third factor is the limit of production of which estates at present being restricted will be capable under free output.

World's Consumption Increasing.

Dealing with the first point, the world's consumption has shown for the past three years—1922, 1923 and 1924—an annual increase over the preceding year of 10, 16 and 15 per cent. Taking an average for the three years it is something over 13 per cent. per annum annual increase in consumption. The consumption for 1925 looks as if it is going to maintain that figure, and if a similar increase occurs in 1926, that year will demand a supply of about 590,000 tons

The probable production for the whole of 1925, based on further releases of rubber at the maximum rate of 10 per cent. per quarter—i. e., assuming that the average price of rubber in London does not fall below 1s. 6d. per pound during the time—the probable production for the whole of 1925 may be estimated at 485,000 tons (and that is a full figure), and that for 1926 at 580,000 tons, assuming that full standard production for all restricted estates is allowed.

That means that restriction will, to all intents and purposes, cease to be effective. A comparison of that last figure of 580,000 tons with the estimate of demand that I have given you before—590,000 tons—would indicate that in 1926 there is going to be no overtaking of consumption by supply. It would seem that it is just probable that production will nearly catch up consumption during that year, but there is no accumulation of stock, apparently, possible.

Further, there are not sufficient young areas of immature rubber existing to provide for the yearly increase in demand which will take place from 1926 onwards, and, so far as I can see, we are now entering upon a period of years when the supply of rubber, limited by the known factors of acreage planted and productivity, will be short of the demand as indicated by the world's increasing activity in every rubber consuming direction.

Limit of Productivity,

The third point on which we ought to have precise information is the limit of productivity of the estates at the present time—whether on full production we can produce 100 per cent. of the figure which has been arbitrarily taken as the standard production for each estate—whether it will be less than that, or whether it will be 90 per cent. or more than 100 per cent. We want precise figures there, and it is very difficult at the present time to arrive at them. In my own view, I do not think we shall reach on the general average 100 per cent. production from areas at the present time, unless those areas are tapped more heavily than they should be, having due regard to the permanency of trees as an asset of the plantation industry. I mean that in the past estates have committed the error of tapping too heavily, and they have found the result in disease, notably brown bast, and I do not think that estates, under reasonable management, are going to fall into that error again.

Of course, the estates in restricted areas have benefited by very light tapping during past years, and that will help us when we come to harvest bigger crops again; and in comparison with estates that have been on full tapping on a very small profit during the past years of restriction, those estates which have been forcibly restricted will probably on a balance sheet struck for six years—three years past and three years to come—find that they will score very heavily indeed.

Need for New Planting

Whether the period of real shortage of rubber comes at the end of 1926, or 1927, or 1928, I think the figures indicate the need for the development of new areas. That will be largely the task of a new generation of shareholders. We old shareholders have most of us grown old with the industry, and I do not think we shall want to face a lock-up period of ten years for new planting. There may be some hope of relief of short supply from reclaimed rubber, but there I would point out that, the chief user of rubber being the motor car, any use of reclaimed rubber to any extent is most illusory and must result in decreased quality and shorter life for the tyre, which would go a long way to compensate for the additional supply which the use of reclaimed rubber might bring in that direction.

Mr. H. de C Hamilton.

(Chairman, Kali (Java) Rubber Plantations).

I consider the price of the raw material should average from 1s. 6d. to 2s. for some time to come. The sharp advance at the present moment has been brought about by exceptional circumstances that might have been avoided, and we do not want to see the price rise to a point where it would check consumption and put a damper on new outlets, of which there are many in the making.

By the end of the year the restriction allowance will be 85 per cent of standard production, which is as much, if not more, than the old restricted area can be expected to produce—if the lessons taught by restriction as to disease and bad bark renewal are taken to heart and not forgotten, but some estates have areas of young rubber to bring into tapping which may partly make up the deficiency.

The increase of output, when it comes, will be almost entirely confined to British and Asiatic interests, as most of the Dutch companies have been going "all out" during the restricted period.

The output of rubber cannot be increased by leaps and bounds at short notice, so prices may rule high and even go higher during the next six months or so, but it is only likely to be a passing phase, and we can look for steadier prices about nine months hence.

Should restriction be eventually taken off, it would be a great pity to scrap the "Stevenson Restriction Scheme," as having the machinery at hand to restrict, if necessary, creates a feeling of security against over-production and the piling up of stocks.

To my mind—to keep up the future rubber requirements of the world—considerable areas should be planted up yearly from now on to make good the wastage going on in the old rubber—otherwise there will be trouble, but it may be difficult to find land and labour available for the purpose at short notice.

Mr. W. J. Cotterell.

(Chairman, Bangawan Rubber Estates):

In the event of a return to full 100 per cent. standard the question arises, How many estates could, or would, produce their standard 100 per cent.? My own view is that the average would not come within 20 per cent. of that. Therefore, in making calculations as to potential increases in production it is taking a generous view to allow 70,000 tons to 75,000 tons a year extra with restriction off.

Sir J. E. Barlow.

(Chairman Kalbang Rubber Co., Ltd.):

While I deplore the spectacular rise in the price of rubber because it interferes with regular business, I am very glad that we are now doing something to make up for the low prices which we experienced a year ago. There is one point which I should like to make—namely, manufacturers formerly were in the habit of carrying a certain amount of stock. In 1920 the slump came, prices fell, and it paid them better to wait until they needed rubber before buying it. Accordingly, they changed their policy, carried no stocks and bought very cheaply—a policy which is assisted by making forward contracts. Unquestionably this hand-to-mouth buying has caused the present shortage, and manufacturers are now paying 1s. a lb. more than they could have bought at three months ago. This policy no longer pays them, so we may expect in addition to the increased consumption a further demand for replenishing stocks.

RAINFALL IN THE PLANTING DISTRICTS.

NOTE.—It must be understood that in some cases these figures are obtained from one Estate only in the district named and do not necessarily represent the average for that district.

	For the 4 Weeks Ending 25th April 1925.	For the 5 Weeks Ending 30th May 1925.	For the Week Ending 6th June 1925.	For the Week Ending 13th June 1925.	For the Week Ending 20th June 1925.
Yercaud	2.09	6.30	0.66	0.26	6.26
Pollachi	1.79	2.22	0.10	Nil	Nil
Bodinayakanur	Nil	2.04	N.R.	0.57	0.15
Manjeri	1.67	8.80	3.42	0.77	1.43
Nilambur	N.R.	3.36	2.70	N.R.	N.R.
Vayitri	3.79	4.89	0.84	0.90	0.04
Manantoddy	1.61	5.21	3.00	0.80	N.R.
Cochin	4.43	15.94	4.64	1.24	2.73
Gudalur	1.81	5.89	2.52	0.20	0.46
Naduvattam	0.24	7.24	2.01	0.43	1.37
Ootacamund	3.00	7.24	0.37	1.20	2.45
Coonoor	1.14	4.85	0.10	0.73	1.48
Kotagiri	1.07	3.34	0.64	0.54	2.97
Mundakayam	2.62	19.66	12.95	1.61	N.R.
Somwarpet	3.43	2.51	1.12	2.05	0.79
Kalthurthy (S. Trav.)	2.12	10.18	2.87	2.21	N.R.
Peermade	1.95	12.98	5.23	3.93	6.45
Vandeperiyar	2.03	4.04	N.R.	NR	N.R.
Chittavurrai (High Range)	From 1st April	6.30	0.26	1.40	1.45
Kalaar (High Range)	4.98	9.60	4.62	1.87	6.56
Billigirirangans	N. R.	9.01	0.21	0.17	N.R.
Mooply Valley	1.26	11.33	3.38	0.76	N.R.
Dataypore (Hassan)	4.34	6.17	0.48	0.19	N.R.
Mudis (Anamallais)	From 1st April	13.96	4.12	2.40	4.78
Pachamallai (Anamallais)	Do	13.26	2.87	0.33	6.34
N. R. —No Return.					

N B.—In our last issue the Rainfall columns reading "Week ending 25 April" and "Week ending 30th May" should read "four weeks" and "5 weeks" respectively, as printed above.

The Planters' Chronicle

Recognized as the Official Organ of the U. P. A. S. I. (Incorporated)

Managing Editor's Postal Address : POST BOX 155, MADRAS

Do. do. Registered Telegraphic Address : 'UPASI,' Madras

VOL. XX, NO. 27] SAT., JULY 4, 1925 [PRICE, AS. 8

CONTENTS

	PAGE		PAGE
Editorial Notes ...	433	Nilgiri-Wynaad P. A. ...	445
Mr. Edwin Vincent ...	435	General Scientific Officer's	
'The Planting Directory of		Report on Tour in Assam...	448
Southern India' ...	436	Procedure when Analysis of	
Eothen's Monthly Notes ...	437	Soil, etc., are required ...	456
Rubber Specialist's Report for		Commercial and Meteorolo-	
1924-25 ..	440	logical ..	459

EDITORIAL NOTES

General Scientific Officer Till the return of Mr. D. G. Munro from leave at the end of the year correspondence intended for the General Scientific Officer, U.P.A.S.I. (formerly known as the Deputy Director of Agriculture, Planting Districts), should be addressed to the Secretary, U.P.A.S.I., P.O. Box 155, Madras.

Rubber Specialist Mr. H. T. Ashplant has left for England on well-earned furlough, and we look for his return next January for a three and a half years' spell of further useful work.

Scientific Department Officers' Reports The Rubber Mycologist's—Mr. Ashplant's—Annual Report for 1924-25 is being published in two instalments on the 4th and the 11th instants; and the report made by Mr. D. G. Munro, the General Scientific Officer, on his tour to Assam in September, October and November of last year, has been divided into six instalments, publication of which we hope to complete with the issue of August 8.

Incorporation of District Associations Advice has now been received that the Registrar of Joint Stock Companies, Trivandrum, has issued a Certificate of Incorporation to the South Travancore Planters' Association with registered offices at Quilon. All association members of the United Planters' Association of Southern India are now incorporated, but it was little thought in 1918 when it was resolved that all District Associations should become incorporated bodies that the business would take nearly seven years to complete. Owing to the considerable changes made recently the Articles of Association of the U.P.A.S.I. have been revised and a new edition printed, corrected to June 1, 1925, which is available at the offices of the Association, price Re. 1 per copy.

India's Industrial Prestige As one of the eight countries of chief industrial importance belonging to the League of Nations, India now holds a permanent seat on the Council of the International Labour Office; and it may be worth recording that only four countries—the United States of America, the United Kingdom, France and Germany—have an external trade larger than that which India enjoys. And in her case, as in the case of the United States of America, her external trade as compared with her internally-consumed production is a mere bagatelle. She purchased £91,000,000 of British goods in 1924, whereas Australia which is Britain's next best market in the Empire, only purchased £61,000,000.

For India, though sharing with China the unenviable distinction of the lowest per capital wealth in the world has a very great deal of spending money very unevenly distributed—she leads the world in rice, tea, and jute production and in cattle, while in cotton she is second only to the United States. Apart altogether from India's demand for motors, agriculture and engineering machinery and so forth; her aggregate requirements of petty merchandise trinkets, etc., make very big business indeed. A chain of stores throughout the country on the lines of the '5 and 10 cents emporia' of The States or 'Woolworth's Bazaars' of England would be an enterprise of such incalculable promise that one feels the necessary capital to float it cannot be long withheld.

Coffee in East Africa The figures given in the Annual Trade Report of Kenya and Uganda for the year ending December 31 last, illustrate the rapid progress of the coffee growing industry in East Africa. Whereas in 1914 total exports were 17,272 cwts. valued at £47,438, the figures for the last three years have been :—

		1922	1923	1924
Quantity in cwts.	...	129,621	184,400	199,504
Value	...	£379,061	620,897	803,313
Average value per cwt.	...	58s. 7·8d.	67s. 4·1d.	80s. 6·4d.

Samples for Analysis Planters are still addressing the Secretary, U.P.A.S.I., regarding the procedure to be observed when sending soil and manures for analysis, and attention is therefore directed to the extract from the Villagers' Calendar, 1925, which is reproduced on page 456.

It would be of the greatest assistance if members would, whenever possible, send material for inclusion in each Saturday's issue of *The Planters' Chronicle* so as to reach this office by the previous Monday morning's post.

Readers are requested kindly to quote this paper when replying to any of the advertisements appearing therein.

MR. EDWIN VINCENT

Mr. Vincent, in a few well-chosen words in last week's issue, announced his retirement from, and our succession to the editorial chair. In bowing himself off, the editorial stage he expressed the hope that the audience would welcome the coming Editor; and similarly, in bowing ourselves on, we would ask them to speed the parting one. Mr. Vincent is probably correct in saying that, other things being equal, the most efficient location for the Editorial Offices of the *Planters' Chronicle* is the Secretariat of the U.P.A.S.I.; and that consequently any other location would probably in the interests of efficiency have to be discarded in course of time. In the penultimate paragraph of his valedictory note, however, he modestly omits to mention his immediate reason for severing his connection with the paper he has edited so efficiently for the past six years; but we are revealing no secret when we say that the sole reason was the increasing demands which his own business was making upon his time. Our readers will doubtless be glad of this indication that their loss synchronizes with his weal.

The bound volumes for the years 1919-24 inclusive point a moral and adorn a tale. A tale of thoughtful leader writing, discriminate editing, and an unrelaxing managerial qui vive which left no potential advertiser unchallenged and no likely contributor unapproached. A moral of the efficacy of that persevering endeavour, which was foreshadowed in the leading article of August 23, 1919—the Thirteenth Anniversary of the Magazine—and has been practiced ever since.

Mr. Vincent was able to sing *tempora acta olim meminisse juvabit* on no uncertain note as he reviewed last week the pleasant associations he had had with his readers in general and with the South Indian Planting community in particular during the past five years. We trust our efforts likewise will have earned us the right to raise a similar chant when the time for our swan-song comes.

We would at any rate assure our readers that it will be our constant endeavour to see that they have no cause to complain of any lapse on our part from the high standard which Mr. Vincent has set. A certain amount of dislocation is probable when a concern is being reorganized; but we are confident that any such embarrassments which may occur will be purely temporary ones and we enter on our editorial duties mindful of the Tamil saw 'காக்கா காக்கா கசுது அரும்', i.e. *Karka Karka Kasudu arum* which encourages us to hope that 'difficulties will vanish as we learn on'.

'THE PLANTING DIRECTORY OF SOUTHERN INDIA'

(Second Edition, June, 1925)

COMPILED BY H. WADDINGTON, SECRETARY, U.P.A.S.I.

Tempora mutantur nos et mutamur in illis, in other words 'we change with the times.' The trouble is that directories don't. And so from month to month any particular edition tends more and more to mislead and less and less to lead. The increase in inaccuracies of course is slow, and the majority of the information in an edition remains trustworthy until its successor appears on the scene. But though 999 successful references may be made to an old directory, the thousandth one may bring disaster in its train.

The bringing out of a second edition of *The Planting Directory of Southern India* indicates that the author is fully alive to the necessity of keeping at a minimum the subversion of accuracy by the ravages of time. The work is divided into eight sections: the first four of which give particulars respectively of (a) Estates; (b) London Agents and Brokers, Coffee and Cardamom Curers and Planting Engineers; (c) Companies and Syndicates interested in the Planting Industry; and (d) The Planters' Associations through which the Planters of South India carry out their corporate work.

The system of serial numbers not only shows that there are no less than 1023 items in these four sections, but also affords cross-reference to Sections 5 and 7 which are respectively alphabetical lists of 'Estates' and 'Names and Postal Addresses.' These latter two sections in other words serve as an index; and the serial number against each entry indicates exactly where in the first four sections full particulars regarding the Estate, Firm, or Person under reference may be found.

Section 6 is an entirely new feature of the work, and deals with the Labour Department of the U.P.A.S.I. It embodies a resumé of the department's history, a list of the Agencies at present maintained, and the names and addresses of the European and Indian personnel. Perhaps it might be preferable in future editions to interchange this section with Section 5, thus bringing together the two sections in which the index is contained.

The serial numbering could then be carried on from Section 4 into the new Section 5 so far at any rate as the European staff of the Labour Department is concerned; and the additional serial numbers entered against their names could be brought into Section 7, thus making the second part of the index a trifle more complete.

The final Section forms an extremely comprehensive compendium of the chief Indian, Madras, and Native States' Legislative Enactments affecting South Indian Estates, and the good offices of Mr. E. J. B. Greenwood, Electrical Inspector to the Government of Madras, have been enlisted by the author to add an entirely new feature to the Section, in the shape of relevant extracts from the Indian Electricity Act of 1910 and of a commentary indicating the points which owners of Estate Factories should especially note.

In accordance with the Biblical injunction we have left the first, i.e. Historical Preface—to the last. It is however not the least, indeed from certain standpoints it is perhaps the most interesting section in a uniformly valuable book. We are glad to note that the resumé of Planting History in South India which the section in question embodies contains very considerably more information that was available when the first addition went to press. We are sure that all readers of the Directory will be extremely grateful to the author, Mr. Waddington, for undertaking the research work necessary to unearth the extra historical data despite the very many other calls upon his time. Those in a position to do so will doubtless give tangible expression to their appreciation by sending him any material in their possession which would enable him to amplify this unique and valuable preface in future editions of the work.

Every reader of this article will, doubtless, be extremely anxious to obtain immediately at least one copy of this most excellent and indispensable work of reference, which is available at Rs. 7-8-0, post free, per copy from the Offices of the United Planters' Association of South India in Madras.

MONTHLY MARKET NOTES

BY

‘EOTHEN’

Tea Market.—The tea market, although naturally still overshadowed by rubber, has maintained reasonable strength during the past month. For some time the offerings at the weekly auctions have been automatically restricted, but after the Whitsuntide holidays both the Indian and the Ceylon Associations decided that printed quantities might be substantially increased as from the sales beginning June 9 up to the end of July. This is, of course, a very healthy sign, and those who have the interests of the industry at heart will be gratified when artificial restriction of any kind is abolished. At the recent auctions prices have been on a satisfactory level with an improving demand for teas of good quality, while the lower grade descriptions have been less unpopular than for some weeks past. There is generally a more optimistic feeling regarding the future, and if the circulars issued by the Indian and Ceylon Associations to their members, impressing upon them the necessity for careful plucking, are properly heeded, then there should not be much risk of overproduction this year. Members of the Indian Tea Association, furthermore, have agreed not to enter into any further contracts for the forward sale of crops for the current year.

Several tea company reports have recently appeared, all of which showed signs of undoubted financial strength, and in some cases comment was made that the directors had pursued an even too conservative policy, preferring to build up spectacular reserves rather than to distribute proper dividends to their expectant shareholders. At the same time, in spite of the disappointment occasioned to the shareholders of the companies concerned, this evidence of financial strength caused a wider interest to be taken in tea shares generally, and *bona fide* investors have already begun to nibble at the tea share market. It is realized that in the case of Indian tea companies

crops are fairly certain to be bigger, the outturns already reported by the Indian Tea Association, up to the end of April, 1925, being 17½ million lbs. compared with 9½ million lbs. for the corresponding period of 1924. It is doubtful whether the Ceylon companies will be able to maintain their outputs unless they indulge in coarse plucking.

The tea auctions were resumed after the Whitsuntide holidays with an active enquiry for practically all descriptions at fully firm to rather dearer rates. The strongest feature was the competition for tippy broken and good liquoring fannings; prices for these showing a distinct advance on last sale rates. Included in the offerings also were several invoices from Southern India, with attractive quality, which made good averages. The very commonest and stalky teas were in comparison somewhat slow of sale. Unfortunately, an irregular and frequently lower tendency developed at the Ceylon auctions on June 9. This was more or less accounted for by the distinct falling off in quality, as the very highest grades met a strong demand, with prices often showing an improvement on recent rates.

With regard to the statistical position, the Board of Trade figures are not yet available, but it is anticipated that the comparative stock figures will not make particularly pleasant reading, mainly because the present period compares with the time last year when a reduction in the tea duties caused a rush of deliveries. In considering the stocks of teas, it is well to remember that low grade China and Java varieties are estimated to comprise no less than one-third of them. Much of this inferior stuff is positively unsaleable.

• Yesterday's Indian sale was firm for good tippy teas.

Rubber.—On June 4, rubber touched 3/3d., the highest price reached for eight years. The rubber market has fluctuated in a most excited manner but, owing to the undoubted scarcity of spot rubber, those who have it to sell have been able to stand firm, and, to lapse into common parlance, 'get some of their own back.' One may be pardoned at not sympathizing with the Americans in being 'squeezed' as they undoubtedly are being. They squeezed us well and truly last year when they brought down the price to 9½d. per lb. and those manufacturers who did not take the opportunity to buy forward for this year around 1/3d. are now paying the penalty for being greedy. Of course, a good many American manufacturers have covered the bulk of their 1925 requirements at prices between 1/- and 2/-.

The most important pronouncement during the past month has, from the American point of view, been Mr. Secretary Hoover's attack on the Restriction Scheme. The American Secretary of Commerce described it indirectly as a restraint on international trade. We must absolve Mr. Hoover from any desire to be humorous, but one's risible faculties are excited by this remarkable spectacle of the Secretary of Commerce of such a hide-bound, protectionist, tariff-guarded country as America talking unctuously about restraints of trade. America has protected herself by erecting an impassable tariff boundary against other countries. We do not blame her for this, but we do claim the right to take proper measures to protect our rubber plantation industry in any manner which we consider desirable. America has no right to expect planters to slave in the tropics to produce rubber to sell to her at just over cost price.

At the Rubber Trust Company meeting Mr. H. J. Welch dealt with Mr. Hoover's remarks as they deserved. Mr. Welch, however, expressed the regret, shared by all those who have the interests of the rubber industry at heart, that spot rubber had become so short. Another rubber boom would be very nice for a few moments but in the end would bring back the industry to the same basis as it found itself in 1922.

There seems to be some misunderstanding as to the working of the Stevenson Restriction Scheme, statements having recently been made that the scheme automatically comes to an end on the releases going to 100 per cent. This impression is quite wrong as the scheme is so framed that it can go, if necessary, up to 120 per cent of standard production and in the course of time this may become advisable in order to allow estates to clear off some of their superfluous stocks of rubber.

Another statement of Mr. Hoover's which has received considerable publicity is that American manufacturers can replace raw rubber to the extent of 40 per cent of their requirements when reclaimed, and that all arrangements are already in hand to do so. A well-known Mincing Lane firm replies to this by pointing out that there is a fortune in sight for the enterprising tyre manufacturer who will advertise that his tyres, which contain no additional reclaimed, will stand up to the old mileage, and are, therefore, worth the \$2 or so more which he is obliged to charge for them.

London stocks of rubber have again been substantially reduced during the past month. Both landings and deliveries have tended to become smaller. The figures for the week ended June 6, are as follows :—Landed, 632 tons ; delivered, 868 tons ; stock, 5,456 tons compared with 51,096 tons a year ago and 52,453 tons in 1923.

With regard to the market prospects, the tendency in the 'Lane' is to expect that an average price for rubber of at least 2/6d. will be obtained during 1925. Some think rubber may touch 3/6d. in the near future, but the majority are looking for a setback to take place very shortly, although it is not considered that there will be any substantial decrease in the price which, even if it steadies itself around 2s. per lb., is still remunerative to the producer.

Rubber shares are beginning to respond to an appreciation of the greatly improved conditions, and it is beginning to be realized by the general public that towards the close of the year some highly respectable dividends will undoubtedly be obtained. There is, however, still a tendency to bid for the shares of the better known and usually highly capitalized companies to the exclusion of their smaller, cheaper and more remunerative brothers.

Coffee.—What is called the Buyers' Strike against high prices is still continuing in America. America being a nation of coffee-drinkers naturally feels hurt and aggrieved over recent prices, and efforts are being made to persuade people to refrain from indulging in coffee until the price is down. This movement is meeting with some success, and incidentally helps the consumption of tea, for after all the poor Americans must drink something. Thus Sir Charles Higham's Tea Advertising Campaign is being carried on under auspicious conditions. One New York journal pretends to foresee a chance of America changing its coffee-drinking habits, if people become convinced that they are paying unreasonably for it.

The market, however, has been falling for some time past, and prices have now reached a level at which some well-informed coffee merchants think American distributors and roasters ought to commence buying to replenish their admittedly small stocks. But this view is not likely to be accepted until prices decline further unless the Brazilians can convince the consumers of the United States that coffee is worth as much or more than it is selling for.

When Americans discuss the Brazilian Coffee Defence Scheme, one is reminded of their attitude toward the Stevenson Rubber Restriction Scheme. In both cases an industry has been controlled by the producers; in both cases high prices have resulted and consumers have become extremely annoyed. What will be the eventual result? In the case of coffee Brazil is sending representatives to the United States, and the National Coffee Roasters' Association is sending representatives to Brazil, to gain a better understanding of what is regarded in America as Brazil's futile effort to hold up prices and in Brazil as America's unreasoning opposition to a price level they consider fair.

London public sales were resumed on Tuesday after the Whitsuntide holidays, demand being good and prices generally firm to dearer. Futures were quiet.

LONDON,
June 11, 1925.

ANNUAL REPORT FOR 1924-25 OF H. T. ASHPLANT, A.R.C.S., RUBBER SPECIALIST, U.P.A.S.I.

Prevention of Secondary Leaf Fall

Spraying demonstrated to be a Practical Estate Measure.—The successful results of the spraying carried out in April to May, 1924, on 700 acres of rubber of varying ages were described in my August Report. The results of that season's operations may be held to have conclusively demonstrated the practicability of the spraying of rubber as an ordinary estate measure. It has not been possible as yet to obtain any reliable data showing whether the retention of the foliage through spraying leads to better crops, though the yield figures available from comparatively young sprayed rubber certainly suggest an improved yield response. As to the influence of the spraying upon growth, there remains no doubt. The trees in the area regularly sprayed for two years past have in each year made a girth increment greater by half an inch than their unsprayed neighbours. One other noteworthy result of the spraying may be mentioned here, and that is the comparatively large amounts of foliage borne this year by the trees which were sprayed a year ago. Thanks to the retained vigour of the branches, trees sprayed last year have developed this year noticeably better heads of foliage than similarly aged trees in the vicinity which were not sprayed.

Spraying Operations in 1925.—South Indian Planters have not been slow in appreciating the benefits and possibilities offered by spraying. The flattering progress since my last report is neatly summed up in the current local catch-phrase 'We are all sprayers now.' This season every

rubber estate in South India with only two or three exceptions has undertaken the spraying of some portion of its acreage. Altogether some seventy spraying machines are in operation, and I estimate that before the season closes, approximately 4,000 acres of from nine to twenty years, and more than 6,000 acres of less mature rubber will have been sprayed. Included in this acreage are three wholly mature estates, every tree on which is being sprayed. Should the spraying now in progress give results equal to that already recorded—and there is no reason to think that the greater experience of the work will not produce better results than hitherto—I anticipate a big increase in the area to be sprayed next year. Much more of the accessible mature rubber will probably be covered in future spraying operations.

The types of spraying machine employed have already been described and call for no further mention here. One has only to note that, with perhaps one exception, the machines purchased on the writer's advice are standing up well to the work, and for the most part, users are satisfied. It is realized now by all users that when pumps have to work at such heavy pressures, little mechanical break-downs are inevitable occasionally. The delay and loss resulting from these break-downs can, however, be minimised by the purchase of a large number of spares. Where sufficient spares are available, the minor little accidents which are the bane at present of the local rubber planters' life will cease to give cause for worry. In order that sufficient spares for next season's work may be here in time, estates should order by August next. They should be familiar now with the spares most needed.

Details of the cost of spraying rubber of various ages were given in an earlier report. It is satisfactory to find that the larger scale on which spraying is now undertaken is bringing down costs appreciably.

Anatomical Structure of Hevea Leaf in Relation to Spraying

Some planters have been very much concerned over the comparative lack of receptivity of the lower surface of the Hevea leaf to sprays. While Bordeaux Mixture applied to the upper surfaces of the leaves soon shows up vividly, the same volume of spray discharged at the lower surfaces, where it is most needed, does not leave much visible sign of its presence.

From the grayish green bloomy appearance of the under surface, one suspected at first the presence of a waxy coat, which would have accounted for the effect above described. Close investigation of the leaf structure, however, show that its repellent effect upon fluids is due to quite other causes, no wax being present. Looked at under a high-powered microscope, the epidermis of the under surface of the Hevea leaf is seen to be thrown up into ridges. The ridges are composed of a cutinous material secreted by the epidermal cell, each ridge being strengthened by curious rod like bands of the same material. Since each cell forms a ridge of its own the individual ridges, as also the depressions between, are of microscopic dimensions.

The ridged structure of the lower side of the Hevea leaf has, I find already been noticed by Bobiloff, but his description errs in certain details. From the description given, it will be clear that the repellent effect of the under leaf surface to fluids is due to the ridges, or rather, to the presence

of air in the microscopic depressions between the ridges. These air pockets would repel the larger drops of Bordeaux Mixture, causing them to run away to the sides of the veins, or drop off. With regard to the leaf stalk and the other regions of the lower leaf surface, it is worth noting that the ridges become much less pronounced as the veins are approached and over the veins themselves, and along the mid-vein and leaf stalk, the epidermal surface is smooth. To the latter fact may be attributed the better sticking power of the Bordeaux Mixture in these regions. As it is the stalk midribs, and veins which are especially singled out by *Phytophthora* for attack; the greater affinity of these for the Bordeaux Mixture is fortunate.

The upper surface of the leaf is quite smooth. Thanks to this and to its much darker colour, the Bordeaux Mixture sticks and shows up remarkably well. The comparatively good receptivity of the upper surface to Bordeaux Mixture is perhaps not so fortunate, for as has already been pointed out in previous circulars, this surface does not seem to invite *Phytophthora* attack, and the Bordeaux Mixture with which it is usually lavishly coated in spraying operations is largely wasted.

Further Manuring Experiments in Rubber

The Chilean Nitrate Syndicate having kindly placed five tons of nitrate of soda at my disposal. It has been thought desirable, in view of the successful results attendant on the use of this manure on rubber in Sumatra to make some further trials with the manuring of rubber in South India. As the time of application seems to be an important matter in the success of manuring, this time, all the sodium nitrate was applied in December and January last, just before wintering.

A series of plots on each of the experimental stations—Mooply and Tenmalai—have been utilized for a combined manuring and spraying experiment, the alternate plots between those manured having been sprayed with Bordeaux Mixture. It will be interesting to see the results of the manuring contrasted with those from the spraying right alongside.

As the plots on the rubber stations are very small, the sodium nitrate experiments are being repeated on a bigger scale on about seven acres of the seven-year-old rubber on Anaikolam Estate. The trees on this area have been regularly measured for three years past, and as the rubber adjoins the Mycological Station, one is in a good position for closely observing results.

Problem of averting some of the Loss of Crop through Rains.—Some experiments which were carried out on the Mooply Experiment Station with different protective devices show that it is possible, with the aid of the drip prevention attachments to avert a little of the loss of crop caused by rain on South Indian rubber estates. From the yield figures which were published in the *Planters' Chronicle* in March, the annual loss of crop through interference with tapping by rain was calculated to be at least 60 lbs. per acre.

After numerous attempts to find some means of mitigating these recurring losses, the writer succeeded in evolving a cheap and simple anti-drip device which should appreciably improve monsoon harvesting conditions. Preliminary trials indicate that where the device is adopted, a

total of at least 10, and possibly 15 lbs. additional crop per acre will be harvested during the four monsoon months. Particulars of the suggestion have been circulated to all estates, and preparations are being made on a large number to put it into operation during the approaching monsoon.

Investigation of Hevea Bark Anatomy

While there is a greater correlation between the yield of a tree and the number of latex rings, than between the yield and any other character, the correlation found (correlation co-efficient=0.56) is not as perfect as to render the number of latex rings alone a wholly reliable diagnostic character of yield.

Suspecting that one reason for the imperfect correlation might be differences in the bores of the latex tubes in different trees I have endeavoured in several ways to get measurements of the individual latex tubes in trees. This work is made exceedingly difficult by the sinuous course and great variations in the diameter of a single tube, and also by the frequent fusions of neighbouring tubes. By measuring a sufficient length of tube however, it has been possible to get reasonably accurate values, and many interesting data have been obtained.

It is apparent from these measurements that the latex tubes of Hevea vary in diameter considerably. A range of variation from 0.015 to 0.041 mm. has been recorded. If the mature unbroken latex tubes in the same tree displayed this range of variation, further investigation would be profitless from any practical standpoint. Fortunately one finds that the average diameters of the latex tubes of the fully-developed continuous rings in the same tree exhibit remarkable uniformity. This uniformity is, moreover, also exhibited by the bark of different ages on the same tree, the average diameters of the latex tubes in freshly renewed bark corresponding closely with the diameters of those in the original bark. When one passes from tree to tree, appreciable differences in the calibre of the latex tubes may be observed.

Now the volume of a circular vessel varies as the square of the diameter. (If for instance the diameter be doubled, the volume is increased four times.) It will be evident therefore that established differences even of a small order in the diameter of the latex tubes in Hevea would go a long way towards explaining the imperfect correlation between the number of latex rings and yield. In one of the cases investigated in which a tree, well equipped with latex rings was found to be giving a slightly lower yield than another tree with fewer rings, measurements showed the diameters of the rings in the latter tree to be greater, and calculations made from numerous measurements demonstrated the total fluid capacity of the tapped tubes in the lesser-ringed tree actually to be greater than that of the tree with many rings.

Whether or not trees can be classified into types sufficiently constant as regards the bore of their latex vessels to permit of this feature being utilized as an additional anatomical criterion of yield capacity, it is impossible to say at this stage in the investigations. Studies of the latex vessels of Hevea are beset with many difficulties, the most serious being the lack of a suitable technique. The laticiferous system, for instance, cannot be dissected out or impregnated like animal systems, and one can only get a reasonably accurate idea of the dimensions of latex tubes, which, one may

mention in passing, are never quite round in section, by making hundreds of sections, and averaging vast numbers of measurements. For this reason, work on this subject can only proceed slowly.

Budding of Hevea

Further experience of this indicates that the bud bark of different mother trees varies considerably in the capacity for union with foreign stock. Whereas upwards of 80 per cent successes have been obtained from buds taken from certain mother trees, buds from other trees have only given 30 to 50 per cent successes. In the case of one mother tree, all but 10 per cent of the buds failed to take.

It is obviously impossible to secure similar conditions in all respects for the different batches of buds, and the apparently varying capacity for union is explained to some extent by differences of stock, and still more perhaps by the different conditions prevailing at and just after the time the budding operations are carried out. Another feature responsible for the failure of some of the buds to take is the unhealthiness of the bark. Branches removed after the monsoon are found to have a proportion of their buds infected with *Phytophthora*.

The greatest number of buddings successfully brought off have been obtained with buds from which the subtending leaf had already fallen, leaving a healed scar. Bud bark from which the leaf stalk has to be cut at the time of the operation is very liable to dry out. Buds that have naturally shed their leaves are available in greater numbers in the spring than at the latter end of the year, and in view of this and the fact that the buds which are newly mature will not, by that time, have been exposed to *Phytophthora* infections, the early months of the year—from March to end of May—would appear to be the most suitable months for budding operations.

Success of Estate Buddings.—It is gratifying to report that, despite the numerous local difficulties, it has now been amply demonstrated that the budding of Hevea is a practical estate operation in South India. The experiments at the Mycological Station have already been recorded. In October last a start was made in earnest with budding on two Mundakayam estates. At first the results were disappointing, only some 10 per cent of all the buds applied, taking. The work was persisted in, however, with greater promise, the following batches yielding 20 to 30 per cent successes. Although climatic conditions have been less favourable since then, greater experience and familiarity with the work have led to immensely improved results, and before the season closed the proportion of success attained had reached over 75 per cent.

The example just quoted is proof enough, that with perseverance the difficulties associated with budding rubber under South Indian conditions can be surmounted. The various possible methods have been tested out at the Mycological Station and all that this station can do now is to provide instruction in the most suitable method. Nothing but constant practice will ensure success. These estates therefore, which have made plans for budding during 1925, should select two or three bright deft-fingered coolies, and see to it that they have plenty of practice before the season arrives.

(To be continued.)

The New Chevrolet

THE NEW 20 H. P. CHEVROLET SUPERIOR 'K' MODEL
TOURING CAR AS PER MAKERS' SPECIFICATION WITH
BATTERY IGNITION; ALL NEW FEATURES AND
COMPLETELY EQUIPPED; COMPLETE WITH
SPARE RIM, AND TUBE AND A FULL
KIT OF TOOLS

Rs. 2,900.

F. O. R. MADRAS.

Magneto Ignition Rs. 250 extra.

THESE CARS ARE FULLY EQUIPPED WITH ELECTRIC
LIGHTING AND STARTING-HORN-KAKHI HOOD-SIDE
CURTAINS-SPEEDOMETER DASHLAMP-TOOL
KIT-SPARE RIM, TYRE AND TUBE
AND DUCO FINISH.

THE IDEAL PROPOSITION FOR THE PLANTER

Sole Distributors for Coimbatore District—

E. Vincent & Co.

COIMBATORE AND POLLACHI

PHIPSON & Co., Ltd.

WINE MERCHANTS

SOLE AGENTS FOR

CHAMPAGNE—

Veuve Clicquot
G. H. Mumm
Pol Roger
Charles Heidsieck
Ayala, etc.

PORTS, SHERRIES, MADEIRAS—

John Harvey & Sons
Graham & Co.
Butler Nephew & Co.
Saccone & Speed, etc.

FRENCH WINES—

Nathaniel Johnston
A. de Luze
C. Marey Liger Belair

SCOTCH WHISKIES—

John Begg
Jock Scott
Thomson's G. H. L.
MacKinlay's 'M.L.'
etc.

BEERS—

Pilsner Urquell 'Light
Bitter'
Barclays London Lager

GINS—

Coates' Plymouth
Burnett's London Old
Tom

Special Terms to Planters

PHIPSON & Co., Ltd.

Telegrams : 'BHIPSON'
BOMBAY.

6 Apollo Street,
BOMBAY.

NILGIRI-WYNAAD PLANTERS' ASSOCIATION

Proceedings of the Seventh Annual General Meeting held at
Gudalur on Tuesday, June 9, at 11 a.m.

Present

R. Fowke, Esq. (*Chairman*), Messrs. J. B. Adkins, F. E. Morshead, W. K. Baillie, G. W. Fulcher, R. M. Nicolls, J. C. Nicolls, J. C. Blackham, J. E. Bisset, E. A. Hay, Crawford Walker and D. Mackintosh (*Honorary Secretary*). Mr. Aird wired his apologies for being unable to attend.

Visitors

Messrs J. Bayzand, Morrow and Col. Ward.

The Minutes of last meeting were read and passed.

The Chairman's speech was as follows :—

GENTLEMEN,

Your Chairman, Mr. Naylor, proceeded Home in December and as your Vice-Chairman I automatically stepped into his shoes.

I do not propose to detain you long. It is as you know an Honorary Secretary's prerogative to do all the work, and it does not behove me as Chairman, and Acting Chairman at that, to infringe on this doubtful privilege more especially at the close of his term of office when he naturally wishes to give you a resume of what has transpired in the district during the year.

It is a little unfair on the Monsoon to drag it up again and remind you of the damage it did in this district last year, I only hope the coming one will be kinder to us.

Regarding roads no attempt has been made to repair or to reconstruct the Nadugani Ghat Road, and it is to be feared that the section of the Vytiri-Gudalur Road between Cherambadi and Meppadi will be almost impassible for vehicles by the end of the Monsoon as it is in a very bad state at the present moment.

The amended Anamalai Labour Scheme has, as you are aware, only been working for two months and it is as yet too early to make any prophesy as to its ultimate success. As a member of one of the Control Committees, I feel assured that the scheme has great possibilities, but I would ask you to assist your Control Committees by expressing your views and making constructive criticisms ; and for this purpose I would suggest that the subject be put on the agenda of each meeting as a matter of course.

You will see from our Association accounts by how fine a margin we are running our finance and I am sure you will agree that it is incumbent on us to raise our subscription. This subject will come up later at this meeting for discussion.

Your Chairman last year commented on the dryness of last hot weather, but this year we have been most fortunate in this respect and the tea in the

district as a whole has not stopped flushing since last Monsoon. With the satisfactory labour situation and the favourable weather both the Estate and the Labour have been able to make good money.

Tea prices have been excellent although there is a tendency towards reduction. If we can only maintain a good standard of quality this slight depression may only prove temporary until the stocks of rubbishy teas have been disposed of, and the slight set back may be all for our good.

Judging from the coffee sales reports, coffee proprietors must have made their fortune this year from this commodity, if crops were as good as the prices secured. I am sure coffee men deserve all prosperity after the lean years they have gone through in the past.

Our thanks are due to the Sports Committee and to those also who helped to make the U.P.A.S.I. Sports Club Annual Week such a success. I am sure this entailed a considerable amount of hard work to those concerned.

Gentlemen, in conclusion, and before placing my resignation in your hands, I would like to thank our Honorary Secretary for all the work he has done for us, and would also tender my thanks to you for the unfailing courtesy you have shown me as your Acting Chairman.

Honorary Secretary's Report

Membership and acreage.—The number of estates in our books is 14, one less than last year, one estate (Gadbrook) having resigned.

Personal members have increased from 12 to 13.

The subscribing area, 1925-26, is 11,580 acres as compared with 11,531 acres last season, the total being made up as follows :—

Tea	...	...	7,245 acres.
Coffee	...	...	4,335 „
Rubber	...	...	Nil.

Total	...	11,580	„
-------	-----	--------	---

A slight increase over last year of 49 acres.

Meetings.—Five meetings were held during the year, the average attendance being ten.

Finance.—The accounts I now submit are for the full year to March 31, 1925. The books are now being audited by Mr. Siromani, Coimbatore, who audited them last year. But I much regret they were not here in time to place before the meeting ; however I have brought a copy of them for your perusal, and would ask you to pass them at our next meeting.

Mr. Siromani recommends that instead of keeping only a cash book that the following books be used in future, ledger, journal, cash book, and receipt book.

The year opened with a cash balance of Rs. 123-5-4. Subscriptions amounted to Rs. 2,002-10-3 and interest on Rs. 500, 6 per cent Government Bond to Rs. 30, making a total income of Rs. 2,155-15-7.

The expenditure under all heads was Rs. 1,954-10-3, which leaves a cash balance of Rs. 201-5-4 (this excludes the Rs. 500 6 per cent Government Bond). Out of the above-mentioned balance of Rs. 201-5-4, Rs. 100 has still got to be paid to our Chairman, Mr. R. Fowke, for his travelling expense to Coimbatore as Delegate to the New Anamalai Labour Scheme, and leaves us Rs. 101-5-4 to start the new season with.

I would take this opportunity, Gentlemen, of thanking each and every member of the Association, particularly our Chairman and Mr. J. S. Nicolls, for the help they have given me in carrying out my duties as Honorary Secretary.

I now, Gentlemen, place my resignation in your hands.

Election of Office-bearers

The following gentlemen were elected :—

- Mr. R. Fowke, *Chairman*.
- „ P. A. Naylor, *Vice-Chairman*.
- „ D. Mackintosh, *Honorary Secretary*.

N.W.P.A. Committee

1. G. W. Fulcher, Esq.
2. J. C. Blackham, Esq.
3. J. Aird, Esq.
4. P. A. Naylor, Esq.

U.P.A.S.I. Committee

1. R. Fowke, Esq.
2. J. Aird, Esq.

U.P.A.S.I. Delegates

1. R. Fowke, Esq.
2. D. Mackintosh, Esq.

Roads and Communications.—It was proposed from the Chair seconded by Mr. D. Mackintosh and unanimously carried; that Messrs. J. S. Nicolls, J. B. Adkins and J. Aird be asked to serve on a deputation to wait on His Excellency the Governor of Madras in regard to the re opening of the Nadugani Ghat the natural outlet to the coast for the Nilgiri-Wynaad and the link connecting this district with the proposed Nilambur Railway.

Sultan's Battery Road.—The members of this Association are strongly of the opinion that the Cherambadi-Vytiri-Calicut Road will again be

blocked this year and as the Sultan's Battery Road will be the only outlet left to the coast for the district, the deputation were instructed to place this important matter before His Excellency and plead to have this road put in order for cart and motor transport at an early date.

Ouchterloney Valley Road.—The Honorary Secretary was instructed to write to the Nilgiri District Board the appreciation of the meeting for the work done on this road during the last few weeks, and to draw attention to the fact that so far nothing has been done to the Sandy Hill Section of the road, which though at the end of the district is a very important one, serving several estates, and at present in a chronic condition. In most instances the side drains are higher than the road, with the result that the cart wheel tracks are water channels.

Sholay Bridge.—The Honorary Secretary was requested to convey the Association's appreciation to the President of the Malabar District Board, for so promptly having this bridge put in order.

Election of New Members.—The following were unanimously appointed members of this Association, Linsale Estate (late Chembaly), Messrs. Aspinwall & Co., Ltd., and P. F. C. Jourdain, Esq.

U.P.A.S.I. Sports Club.—The following resolution proposed from the chair was carried with one member dissenting :—

‘ That all Companies and Proprietors of Estates in this Association be approached through the Honorary Secretary to contribute to the U.P.A.S.I. Sports Club, in order that more junior men might be enabled to participate in the annual meeting by being assisted in their travelling expenses.’

Office-bearers.—Mr. J. B. Adkins proposed a most hearty vote of thanks to the Chairman and the Honorary Secretary for the good work they had done for the Association during the past year, which was carried with acclamation.

With a vote of thanks to the Chair the meeting terminated.

(Sd.) R. FOWKE,
Chairman.

DONALD MACKINTOSH,
Honorary Secretary.

REPORT ON THE ASSAM TOUR OF MR. D. G. MUNRO, GENERAL SCIENTIFIC OFFICER

September–November, 1924

Prefatory Note

During the past year changes occurred in the administration and control of the Scientific Department of the United Planters' Association of Southern India. A certain sum of money is being contributed to the Indian Tea Association for the benefit of their co-operation and results ; and this tour, the report of which is given herewith, was undertaken to find out actual conditions in Northern India, especially at Tocklai ; and under what sort of conditions the industry is carried on there.

Owing to the comparatively small area of tea in Southern India, we cannot hope to emulate Northern India as regards the size and equipment of their scientific staff and laboratories; as sufficient money cannot be raised. Little research work can be done and the attentions of this section will have to be mainly directed to field experimental work and conditions of manufacture—acting as a clearing house for information on research work done at Tocklai and touring work.

Most of the results contained in this report have already been published and it has been my endeavour to get them together in a more or less connected form. I wish to take this opportunity of tendering my best thanks to the Officers of the Indian Tea Association, Scientific Department, for the very kind way in which I was received and treated by them and also to the Planters in the various districts whose hospitality I shall not soon forget.

Topographical

Tocklai Experiment Station is situated in the Jorhat District of the Assam Valley. It is the head-quarters of the scientific staff which consists of Chief Scientific Officer, three chemists, one entomologist, one mycologist, all Europeans; as well as a large Indian staff.

The area of tea at Tocklai itself is small, a matter of about five acres. The main experimental area is at Bhorbetta two miles away. Out of a total of 120 acres available sixty have been planted up.

Different varieties of dark and light-leaved indigenous varieties and China are grown and the experimental and research work being conducted includes as many as possible of the problems of general management for production as well as manufacture.

The soil is a silty sand of sedimentary origin having been deposited at one time by the Brahmaputra and its tributaries. By the usual measures adopted in temperature, climates it is a poor soil deficient in most of the essential plant food substances and noticeably so in nitrogen and phosphoric acid. Organic matter is present in very small quantity and the soil is very deficient in lime. It shows an acid reaction to litmus and various methods of estimation show a lime requirement.

The following represents average figures of analysis :—

Mechanical Analysis

					<i>Calculated on dry soil</i>
Moisture	...	...	...	...	...
Solubility in acid	...	...	...	...	0·21
Coarse sand	...	..	...	...	5·37
Fine sand	...	...	...	...	51·28
Silt	...	...	...	...	11·38
Fine silt	...	...	...	...	21·55
Clay	...	...	...	...	7·06
Organic matter	...	...	...	...	3·01

Chemical Analysis

				<i>Calculated on dry soil</i>
Moisture in air dry soil	...	...	...	2.14
Loss on ignition	...	...	...	4.06
Insoluble matter	...	...	...	87.82
Total nitrogen	...	...	...	0.09
Iron and aluminium oxide	...	...	...	5.33
Total potash	...	...	...	0.175
Total phosphoric acid	...	...	...	0.02
Available potash	...	...	...	0.007
Available phosphoric acid	...	...	...	0.005
Acidity by Veitch Albert's method	...	...	...	800
Water holding Capacity (modification of Hilgard's method)	...	...	...	42.8 = 30 per cent. water.
Optimum water-content for best mechanical condition	...	...	...	14.5 per cent.

As the land is level variation in the soil itself is not as great as may be looked for in hillier districts. It has been found by experiment that a fifty bush plot repeated five times gives results for a 10 per cent difference in crop to be significant and most of the comparative experimental work has been and is being carried out on plots of this description.

The Tea Industry

The establishment of Tea Industry in Darjeeling was due to the enterprise of Dr. Campbell who was appointed Superintendent of Darjeeling at a time when attention was being attracted to the possibilities of starting and developing this cultivation and manufacture of tea in the East India Company Territory. In 1834, Governor-General Lord William Bentinck had appointed a committee 'for the purpose of submitting a plan for the introduction of tea culture into India.' This committee was apparently ignorant of the fact that in 1821 Major Bruce and in 1824 Mr. Scott had discovered the tea plant growing wild in Assam and much expense and considerable delay were consequently incurred in bringing plants and seed from China and importing China men to teach the people of India how to grow the plant and manufacture tea.

Satisfied that a great future might be before the industry, Government itself undertook the formation of experimental plantations in Upper Assam and the Districts of Kumaon and Garhwal. In 1839 private speculation took the field and the Assam Company was formed.

Such, very briefly were the beginnings of an industry which now occupies an area of about 600,000 acres in North-Eastern India and employing nearly 700,000 coolies.

The growth of the industry was rapid. In the period 1895-1900 and in the year 1922 the average acreages of tea were :—

	1895-1900	1922	Total
Assam ...	211,301	412,499	592,877
Bengal ...	73,169	180,378	
Madras ...	5,558	43,602	91,910
Travancore ...	3,352	48,308	

In the year 1922, 677,635 coolies were engaged in the industry in Assam and Bengal on an acreage of 592, 869 acres or an average of 1.12 coolies per acre. During the same year Madras and Travancore with an

area of 91,911 acres employed 79,509 coolies or 0.86 coolies per acre. For the same year (1922) the average yield per acre for Assam and Bengal was 454 pounds made tea, while for Southern India the figure was 390 pounds made tea. From these figures it may be seen that for the year Assam and Bengal required 0.247 coolies for producing 100 pounds made tea while Southern India required 0.22 coolies per 100 pounds made tea. The difference in favour of Southern India may be due to the fact that pruning usually is only done on an average once in three years as against annual or at most biennial pruning common in Northern India; so giving a longer plucking season with no 'dead period.' These figures of production, however, vary year by year. In the Brahmaputra Valley from 1896-1901 yields ran about an average of 400 pounds made tea per acre, from 1902-1918 yields rose steadily to over 700 pounds per acre. In 1919, 1920 and 1921 the slump occurred, prices fell and restriction was introduced and the yield dropped to an average of 525 pounds per acre in 1921. Since then yields have been rising steadily again.

In the Surma Valley yields ran about 500 pounds in 1901 and by 1916-17 had risen to 600 pounds per acre. In 1921 due to reasons given above, the yield averaged about 375 pounds per acre, but by 1923 had risen to 550 pounds again.

In the Dooars similar facts present themselves. Up till 1902 yields ran about 500 pounds per acre and in 1919 they were about 750 pounds per acre. During the slump, yields decreased and in 1921, 425 pounds was averaged. Since then a steady rise in average yields has been shown.

An examination of prices per pound of Indian tea sold in London up to August in 1920, 1921, 1922 and 1923 as reported by the Tea Brokers' Association of London shows that generally Southern Indian teas hold third place, Darjeeling being first, Assam second, South Indian third while the Dooars and the Surma Valley fetch a lower price.

In Darjeeling, China, China Hybrid and latterly especially in the lower elevations, Assam indigenous are mostly grown. With the higher elevation, flavoured teas are produced and it is for the flavour that the highest prices are realized.

In Assam mostly light-leaved jats are grown and price is obtained on the liquoring qualities of the tea produced.

In the Dooars and the Surma Valley dark-leaved jats are more largely grown as it is found they stand up better under the conditions than light-leaved jats. This is also found to be the case in Southern India.

Producing districts	1920		1921		1922		1923	
	Number of packages	Average price per lb. pence	Number of packages	Average price per lb. pence	Number of packages	Average price per lb. pence	Number of packages	Average price per lb. pence
Assam ...	495,013	15.48	767,766	12.70	557,175	14.52	471,651	18.66
Cachar and Sylhet ...	193,067	12.41	239,618	6.89	207,310	12.31	178,987	17.03
Darjeeling ...	76,936	17.03	75,692	14.03	52,911	16.78	59,451	19.87
Dooars ...	147,053	13.69	182,358	9.92	123,120	13.58	152,689	17.84
South India, etc.	185,450	14.10	156,216	10.02	142,172	13.26	91,175	18.22

Districts

The three main tea districts of Assam and Bengal are—

- (1) The Brahmaputra Valley, Assam.
- (2) The Surma Valley, Assam.
- (3) Eastern Bengal including the Dooars, the Terai and Darjeeling.

1. The Brahmaputra Valley comprises a total of nearly 270,000 acres of tea including the districts of the Darrang between the Himalayas and the north side of River Brahmaputra, an area of 57,000 acres, and the remainder on the southern side of the Brahmaputra of which the most important districts of tea are Dibrugarh, Sibsagar, Nowgong and Dhunsiri. These districts are bounded by the Mikir Naga and Miju Hills and the Shillong Plateau.

2. Over the dividing range of hills to the South is the Surma Valley including the districts of Cachar to the east and Sylhet to the west. The total areas under tea in these districts amount to about 146,000 acres.

3. Eastern Bengal comprises of the districts of the Dooars, Darjeeling and the Terai comprising a total of about 180,000 acres of which the Dooars account for nearly 120,000 acres.

Communications

The main water way, the Brahmaputra rising in Tibet and flowing through the whole length of the Assam Valley used to bear the bulk of the traffic between the tea districts and Calcutta. While still carrying a large percentage, railways, owing to their rapidity, get their share of transport and the opposition so set up has gone far towards improving and quickening up both railway and river services.

Railways.—Calcutta is in direct communication by rail with Darjeeling. At Santahar, the Assam branch strikes East and turning north again throws out two branch lines to tap the Eastern and Western Dooars. Carrying on east it strikes the Brahmaputra at Amulgaon where goods and passengers are transhipped by ferries to Gauhati on the other side. Shillong, the Ootacamund of these districts and about 5,000 feet high, is fifty miles by road from Gauhati.

From Gauhati the railway passes on to Lumding which is the junction for the railway from the Port of Chittagong through the Surma Valley and serving the Surma Valley tea districts. From Lumding the railway proceeds eastwards through the Assam Valley to Tinsukia where branches break off to tap the Tea districts of Dibrugarh and the oil districts at Sadiya and the coal areas.

Roads.—While parts of Eastern Bengal and the Surma Valley are comparatively well off for roads; in other parts and in the Assam Valley they are very bad. As the whole of Assam Valley is an alluvial plain no stone can be obtained except at enormous cost. During the rains the roads are quagmires and during the dry weather they are deeply covered in dust. The only time they are passably good is just when there is sufficient moisture to wet the surface and hold it together without making it muddy. It is therefore very difficult to move about quickly by road and long road

journeys are not lightly attempted. Light American cars with high clearance are in general use and friend Henry is so much in evidence that this may be pronounced the Elizabethan (Tin) age in motor history in these districts. A lot of money is usually spent on the upkeep of garden roads and experiments have been tried in laying tracks of brick or concrete of sufficient width and distance apart for carrying traffic. Good roads are recognized as an asset of very great value especially in places where labour is a limiting factor and motor lorries are in use for carrying coolies from the lines to out-fields and out-gardens and transporting leaf to the factory. In many places, of course, light railways make up the deficiency.

Climature

The predominating factor which has made Assam such a successful tea growing district is its climate. The tea bush grows on practically any type of soil from the peats or bheels of the Surma Valley and the heavy clays of the Dooars to the light, poor sandy soils found near the Brahmaputra. In order that the tea bush shall thrive it must have a warm, moist climate with no long droughts. This first necessity was recognized many years ago and the following extract, taken from the *Tea Cyclopædia* published in 1881, is of interest in this connection.

'Tea, it may be premised, will grow almost anywhere, but not very many climates will enable it to pay.

To describe the best climate in two words, we point confidently to Eastern Bengal; indeed, the judgment of a considerable portion of the Indian public interested in tea has long since pronounced the same decision. A hot, moist climate, where the thermometer in the shade never exceeds 95°, never falls below 55°; where the rainfall yearly aggregates 100 to 130 inches; where there is never any long drought, but where rain falls at reasonable intervals all the year round; where heavy dews are frequent; where morning fogs are not uncommon; where the sun shines hot in an atmosphere perfectly free from dust; where at no season can a breath of hot wind be felt; where light, penetrating rain is more common than furious downpours; where the effect of the entire climate is essentially enervating to man, and takes much out of him—these are the conditions that constitute, in our opinion, good climate for tea, and where it is wise, if wise anywhere, to make tea gardens. Fever and tea go together. It may be a painful fact for tea planters, but it is no less true. No highly successful tea district can ever be a healthy one.'

Eastern Bengal probably refers to Cachar, for the temperatures recorded in the Assam Valley fall considerably below 55°. The statement that fever and tea go together fortunately no longer holds good.

The China tea bush, which is in some respects hardier than the Assam and Burma varieties, can withstand frost and will tolerate a climate resembling that of Southern England, but, like the other species, in order that it shall yield leaf readily under the unnatural conditions of pruning and plucking to which it is subjected, it must have a warm, forcing climate.

Mann states that in the best of the tea areas the following points are of interest :—

(1) There is rarely a month in which rain does not fall.

(2) During the months before the appearance of the 'monsoon, February, March, April and May when the rainfall is meagre over the greater part of India there is an ample supply in the tea districts.

(3) The total of 80 to 100 inches (or more) of rain is thus well distributed the atmosphere as a result never becoming really dry. There is thus an absence of dry winds which are a feature of Chota Nagpur or Dehra Dun.

(4) The temperature in the cold weather though often below 40° F., rarely falls to freezing point except in the higher parts of Darjeeling.

(5) The temperature though often over 90° F., rarely reaches 100° F. and when high there is also the accompaniment of a very moist atmosphere.

(6) The daily range of temperature is small even in the cold weather compared with India in general and during the growing season, June to October, is particularly small.

These points concerning the necessary conditions for successful tea culture are illustrated from the following figures of maximum and minimum temperatures from six centres, four of which are good tea districts and two (Chittagong and Dehra Dun) which are less favourable.

Average Monthly and Annual Means of Maximum Temperatures

Months	Chittagong	Silchar	Sibsagar	Darjeeling	Jalpauri	Dehra Dun	Devarshola
	°F.	°F.	°F.	°F.	°F.	°F.	°F.
January ...	78·3	77·8	70·1	46·8	72·0	66·2	74·0
February ...	82·3	80·7	73·1	47·9	76·5	69·2	77·0
March ...	86·7	86·0	79·1	56·5	84·8	79·7	83·0
April ...	88·9	88·5	82·5	62·2	89·5	90·6	82·0
May ...	88·6	88·7	85·9	63·8	88·3	95·0	80·0
June ...	86·6	89·4	89·3	65·2	87·9	93·0	76·0
July ...	85·7	90·2	90·0	66·0	88·2	85·5	75·0
August ...	85·5	89·5	89·2	65·5	88·1	84·0	75·0
September ...	86·8	89·8	88·1	64·1	87·2	84·3	79·0
October ...	86·5	88·7	84·8	60·5	85·8	82·3	82·0
November ...	83·0	84·8	78·3	54·2	81·3	75·0	76·0
December ...	78·1	79·7	71·5	48·7	75·2	68·7	76·0
Average of year ...	84·8	86·2	81·8	58·5	83·7	81·1	77·9

Average Monthly and Annual Means of Minimum Temperatures

Months			Chittagong	Silchar	Sibsagar	Darjeeling	Jalpai-guri	Dehra Dun	Devarashola
			°F.	°F.	°F.	°F.	°F.	°F.	°F.
January	...	...	55.3	52.3	49.5	34.8	50.8	44.8	64.0
February	...	...	59.0	55.6	53.3	35.6	52.8	47.0	66.0
March	...	...	67.6	63.2	60.0	42.3	59.7	55.0	69.0
April	...	...	73.7	69.2	66.5	48.9	68.2	64.3	72.0
May	...	...	75.4	72.5	71.7	52.6	72.3	70.5	72.0
June	...	...	76.6	76.2	76.4	56.2	75.2	74.4	70.0
July	...	...	76.6	77.2	77.9	57.7	76.8	74.1	70.0
August	...	...	76.1	76.8	77.7	57.2	76.7	73.1	71.0
September	...	...	76.3	76.4	76.2	55.5	75.3	70.0	69.0
October	...	...	73.4	72.3	70.8	49.8	69.8	60.6	67.0
November	...	...	65.8	63.6	59.6	42.4	60.7	51.8	66.0
December	...	...	58.0	55.0	50.7	36.6	52.9	45.6	60.0
Average of year	...	...	69.5	67.5	65.9	47.5	66.0	60.9	68.0

Surma Valley

The climate of the Surma Valley (Cachar and Sylhet) varies considerably from that of Assam. The rainfall is heavier, but distribution is not so good and spring droughts may be taken as the rule rather than the exception as is the case in Assam. In spite of the early rain shortage, tea growing on the sandy Teelas looks remarkably well at the end of a drought. This may be attributable to the fine root development of these lighter soils.

The table below shows the average monthly rainfall at Jafflong which is situated right under the Shillong Plateau, a few miles west of Cherrapunji. (Cherrapunji is one of the wettest places in the world with a rainfall of about 500 to 600 inches).

Kadininagar represents the north of the Surma District and Chand Khirra, the Longai valley.

The effect of the early drought is that plucking usually starts later than in the Assam Valley, but owing to the higher autumn temperatures plucking usually continues till the end of December. The early drought produces a banji period at the beginning of the season such as only occurs in Assam when the rain starts late. The banji shoot is broken back unless the drought is so severe that the spring growth is held up so early that the banji shoot appears several inches below the plucking surface. In March and April hailstorms are frequent.

During the first four months of the year the maximum temperatures are about 7° F. higher than in Assam but during the monsoon they are about equal. During October, November and December the maximum temperature in Sylhet is between 4° to 8° F. above those of Assam during the same period,

The Dooars

The climate of the Dooars differs considerably from that of the Assam Valley. The table below shows (1) the monthly average rainfall for a tea estate situated at the foot of the hills and (2) for an estate situated some distance from the hills. The Tocklai rainfall typical of Assam is shown for comparison.

The distribution over the first and last three months of the year is most important and it is here that the Assam climate scores over some parts of the Dooars.

The average maximum temperatures of the Dooars is 3 to 5° F. higher than those of Assam, another point in favour of Assam Valley climate during the dry weather. The health and vigour of the tea in this district is largely due to the fact that the soil forms a good mulch which effectively conserves moisture during the dry weather. The lowest are often recorded in February as low as 38° F. having been registered in this month. The lowest temperature registered at Tocklai is 40° F. The Terai district has a climate somewhat similar to the Dooars.

Average Monthly Rainfall Statement for Surma Valley and the Dooars

Months	Jaffiong	Khadini nagar	Chand khirra	DOOARS		Tocklai
				At foot of hills	At distance from hills	
January ...	0.7	0.7	0.23	0.43	0.48	0.56
February ...	0.91	0.8	2.72	1.54	0.39	1.45
March ...	8.21	4.6	5.67	2.54	1.47	3.57
April ...	19.27	15.9	11.97	8.30	3.63	9.14
May ...	27.63	13.6	13.99	22.31	11.84	9.35
June ...	60.41	35.1	22.02	42.14	25.89	14.43
July ...	49.64	24.5	17.51	44.96	29.57	15.82
August ...	40.36	24.8	14.78	31.82	24.81	14.24
September ...	32.6	21.0	12.08	26.4	22.65	10.64
October ...	13.5	12.9	5.91	5.9	4.78	4.33
November ...	1.11	0.3	0.88	0.27	0.14	0.65
December ...	0.4	...	0.15	0.14	0.07	0.38
Total ...	254.74	154.20	107.91	186.75	125.72	84.60

(To be continued.)

SENDING SAMPLES OF SOIL AND MANURES FOR ANALYSIS

Subject to the limitation of departmental work, the Government Agricultural Chemist at Coimbatore is prepared to undertake the examinations of soils, manures, etc., sent by *bona fide* landowners and cultivators. The fees charged for such analysis are shown below.

A. Soils.—The fertility of a soil depends on many factors and hence chemical analysis must be considered only as a partial guide in estimating

its crop producing power. Provided, however, that the sample is collected in a proper manner and full particulars as indicated below are furnished with the sample, much useful advice as to the manurial or other requirements of the soil can often be given as the result of a chemical analysis.

It is essential that the sample of soil for analysis should be really representative of the whole plot or field and not be taken from one patch which may be particularly good or particularly bad. The following method should therefore be adopted: Collect several samples, say, about a dozen, from all parts of the field, taking out the soil to a depth of 8 or 9 inches and mix these together. Any surface vegetation should be scraped off before the samples are taken. Dry the mixed soil in the air, taking 5 lb. of the sample, pack this securely in a cloth bag enclosed in gunny, and send the sample

To

The Government Agricultural Chemist,

Lawley Road P. O.,

Coimbatore.

The name and address of the sender should be enclosed in the parcel. At the same time, send a letter to the Government Agricultural Chemist with the following information:—

1. Name and address of the person who sends the sample.
2. Locality—village, taluk and district—where the land is situated.
3. Survey number of the field.
4. Nature of the land, wet (single or double crop), dry or garden land.
5. Crop usually raised.
6. Facilities for irrigation.
7. Facilities of drainage.
8. Manurial history of the land.
9. What is particularly the defect in the land, as far as can be judged by the party himself.

If more than one sample be sent, great care should be taken that the samples are securely packed so that they may not become mixed up in transit.

B. Manures.—Send not less than one pound of the manure securely packed. In the case of substances such as lime, the sample should be enclosed in an air-tight tin. The sample should be representative of the whole consignment. If the latter is large one, samples should be collected from every tenth bag, these should be mixed well together and a final sample taken from the mixture for analysis. If the consignment is a small one only, mix thoroughly the whole quantity before taking the sample.

Fees.—The scale of fees shown on the next page will be charged for analysis and the fees due by the members of the U.P.A.S.I. will be collected through the Secretary of the Association.

A—Soils

	Rs.
1. Complete chemical analysis including the available potash and phosphoric acid	25
2. Mechanical analysis	5
3. Complete chemical and mechanical analysis	30
4. Alkaline soils (extra fee)	10

B—Manures

1. Poonacs (nitrogen)	5
2. Blood meal (nitrogen)	5
3. Nitrate or calcium cyanamide (nitrogen)	5
4. Nitrate of soda (nitrogen)	5
5. Nitrate of lime (nitrogen)	5
6. Kainit, muriate of potash or sulphate of potash (potash)	5
7. Limestone or slaked lime (lime and carbon dioxide)	5
8. Fish (nitrogen and phosphoric acid)	10
9. Bonemeal (nitrogen and phosphoric acid)	10
10. Superphosphates and basic slag (total soluble phosphoric acid)	10
11. Salt petre (nitrogen and potash)	10
12. Ashes (potash and lime)	10
13. Mixture of poonac and fish (nitrogen and phosphoric acid)	10
14. Mixture of poonac and bonemeal (nitrogen and phosphoric acid)	10
15. Mixture of fish, poonac and sulphate of potash (nitrogen, potash and phosphoric acid)	15
16. Mixed manure with four elements (nitrogen, potash, phosphoric acid and lime)	20
17. Farm yard manure	15
18. Green manure	15
19. Vegetable compost	15

C—Feeding Stuffs and Fodders

1. Feeding stuffs and fodders (moisture, crude proteids, albuminoids, fat, crude fibre and soluble carbohydrates)	30
2. Feeding stuffs and fodders (manurial value—potash and phosphoric acid) extra	10

D—Miscellaneous

1. Oilseeds (oil only)	5
2. Water for irrigation purposes only	10

FINANCIAL, COMMERCIAL AND METEOROLOGICAL

I. The Rupee Exchange for the week ending June 27, 1925

Bank Selling Demand Draft on London

22nd	23rd	24th	25th	26th	27th
18 1/32d.	18 1/32d.	18 1/32d.	18 1/16d.	18 1/16d.	18 1/16d.

II. Summary of latest Market Reports and Prices to hand

(a) Highest London Prices—

Highest prices realized on the London market			Average prices obtained for tea			
Mark	Pkgs.	Price	District	Week ending May 29	January 1 to May 29, 1925	January 1 to May 29, 1924
(1) TEA (MAY 22 to 29)		s. d.		s. d.	s. d.	s. d.
<i>North India</i>						
Budla Kanjikoah ...	166	2 0½	N. India.	1 4·71	1 5·81	1 5·50
<i>South India</i>						
Kan. Dev. H. P. Co., Chokan ...	109	1 10	S. India.	1 7·50	1 6·46	1 5·93
<i>Ceylon</i>						
Talawakelle Co. ...	100	2 1½	Ceylon...	1 8·50	1 8·28	1 7·99
<i>Java</i>						
Windoe ...	120	1 7	Java ...	1 0·70	1 1·05	1 2·36
(2) RUBBER (MAY 27 TO JUNE 9)						
Sheet ...	...	3 3	Sumatra.	Nil	1 4·42	1 4·06
(3) COFFEE (MAY 27 TO JUNE 9)						
East Indies...	Nil	...	Nyassa-land.	0 9·43	1 2·28	1 3·89
<i>African</i>						
Paru Vale 'A' ...	75	154/6				
			Total	1 5·59	1 6·08	1 5·89

(b) Precis of weekly reports on London Markets—

(1) *Tea*.—The market for South Indian teas—except those of the commonest quality—continues very firm and competition for the best liquoring qualities—especially Fannings—is very keen.

(2) *Rubber*.—The market for sheet is rather sluggish and no transactions are reported in crepe.

Forward sales of 1926 crop are being registered at about 1s. 9d.

(3) *Coffee*.—No transactions in Indian are reported, but Kenyan sold really well. There does not appear to be much likelihood of active export enquiry in the immediate future, and business will probably be chiefly with buyers for the Home trade.

(c) Precis of Local reports on planting produce—

(1) Mysore Chamber of Commerce reports business possible in Cardamoms at Rs. 120 per 25 lbs., and in Peaberry parchment coffee at Rs. 23 to Rs. 24 per 26½ lbs.

(2) Colombo Brokers' Association reported on June 25 that 6,856 lbs. of Tommagong teas were sold at Rs. 1.25 and that best quality ribbed smoked sheet rubber was fetching Rs. 1.71 cents.

(3) Peirce, Leslie and Co. (Coimbatore) report on June 29 that their auctions held the previous week found no demand for good parchment coffee, most of which had to be bought in; but keen buying at fair prices of Cherry, Tails and Blacks. They anticipate however early interest in the withdrawn lots.

III. Weekly Rainfall Statement

From April 1, 1925, up to and including Saturday, June 27, 1925

Stations are arranged in order approximately south to north and those not in planting districts are shown in small capitals.

Stations	W.	P.	Total	Stations	W.	P.	Total
1. Kalthuritty.	8.60	18.59	27.19	15. Nilambur ...	13.12	6.06	19.18
2. Tenmalai ...	9.62	20.77	30.39	16. Naduvattam	14.10	11.29	25.39
3. Munda-				17. Coonoor ...	0.50	8.30	8.80
kayam ..	23.47	43.01	66.48	18. Kotagiri ...	N.R.	8.58	...
4. Peermade...	23.41	24.60	48.01	19. Ootacamund	2.41	14.26	16.67
5. Vandiperi-				20. Yercaud ...	0.49	15.57	16.06
yar ...	15.65	7.42	23.07	21. Devala ...	20.65	14.38	35.03
6. Kalaar ...	N.R.	27.63	...	22. Gudalur ...	11.85	10.88	22.73
7. Chittuvurrai	N.R.	9.41	...	23. CALICUT ...	20.13	19.13	39.26
8. BODINAIIKA-				24. Kuttiyadi ...	26.00	26.48	52.48
NUR ...	0.89	2.76	3.65	25. Vayittiri ...	34.79	10.46	45.25
9. COCHIN ...	13.48	28.98	42.46	26. Manantodj...	14.79	10.62	25.41
10. Mooply ...	15.76	19.35	35.11	27. Sidapur ...	12.00	9.42	21.42
11. Pachaimalai	17.69	22.80	40.49	28. Somwarpett	11.42	7.90	19.32
12. Mudis ...	N.R.	25.26	...	29. Bullupete ...	8.26	11.20	19.46
13. POLLACHIE.	1.63	3.11	4.74	30. MANGALORE.	23.20	25.93	49.13
14. Manjeri ...	12.79	16.09	28.88	31. MADRAS ...	0.10	4.17	4.27

W = During the week.

P = Previously.

N.R. = No return.

The Planters' Chronicle

Recognized as the Official Organ of the U. P. A. S. I. (Incorporated)

Managing Editor's Postal Address: POST BOX 155, MADRAS

Do. do. Registered Telegraphic Address: 'UPASI,' Madras

VOL. XX, No. 28] SAT., JULY 11, 1925 [PRICE, AS. 8

CONTENTS

	PAGE		PAGE
Editorial Notes ...	461	General Scientific Officer's	
Mr. Maurice Watts ...	463	Report on Tour in Assam—	
Dr. Coleman on the Import-		(continued) ...	472
ance of Agricultural		District Notes—Shevaroy's and	
Research ...	463	Coorg ...	480
Rubber Specialist's Report for		U.P.A.S.I. Sports Club: Dis-	
1924-25—(continued) ...	465	trict Representatives ...	483
Tea in Northern India and		Export Statistics... ..	484
Ceylon... ..	469	Commercial and Meteorological.	485

EDITORIAL NOTES

A well-deserved honour We congratulate Mr. F. W. Stockdale most heartily on the 'C.B.E.' which he has just been awarded for his meritorious work as Director of Agriculture in Ceylon.

Proposed Rubber Lands Development Loan Mr. A. W. Still, speaking on June 22 at Singapore, advised retaining restriction and using the Stevenson Scale above as well as below 100 per cent until all danger of overproduction disappears.

He predicted a grave scarcity in 1928, unless a rapid increase in the planted areas made the calculated 3,000,000 additional acres required to meet the 1928 demand, of which British sources should supply half. He proposed that the Imperial Government should raise a 5 per cent Lands Development Loan, and that £60,000,000 should be recoverable from a royalty of 3d. per pound on the rubber harvested in the new plantations.

Of interest to our readers, who are practically all interested in soldiering, is the recently proved will of the widow of Admiral Lucas; under which the latter's V.C.—the first ever awarded—will now change hands. The episode which it immortalizes was familiarized to us in *Deeds of Daring* and other such books of our *Prep. School* days, but is perhaps worth recounting here.

On June 20, 1854, 'Middy' Lucas at imminent danger to his life picked up and hurled into the sea a shell which had landed on the deck of the H.M.S. *Hecla* and which was about to burst. For this gallant episode he was awarded the first Victoria Cross, when that decoration was instituted by Queen Victoria in 1857 at the close of the Crimean War.

It has been brought to the notice of the Punjab Government that an appreciable quantity of tea imported into India is of a very inferior quality, that much of it is really unfit for human consumption and that suitable measures should be taken to check and control the importation of such tea. In the United States, Canada and Australia Customs' regulations prescribe the standards with which imported tea must comply, teas are analysed before they leave the Customs and if they do not comply with the prescribed standard they are not admitted. It has been suggested that following the example of these countries, (1) standards prescribing purity for tea should be fixed, (2) Customs' officers should be empowered to require all imported tea to be analysed and (3) such teas as comply with the standards should be admitted freely and those which on analysis fail to comply with the standards should be rejected. In this connection the effect which such restrictions would produce on the price of the commodity will require consideration, and the Punjab Government before taking up the question, desire to ascertain the views of the consumer in the matter. Persons or associations interested may forward their views to the Secretary to the Government of the Punjab, Transferred Departments, on or before October 1, 1926.

Ceylon, it may be worth noting in this connection, has just dropped a 'Rubbishy Teas' Ordinance' designed to prevent the sale of inferior teas; as it appears the desired object can be more easily attained by the promulgation of suitable rules under 'The Food and Drugs' Act.'

The second edition of this invaluable publication is on point of issue from the press, and our advertisement pages give a synopsis of the contents of the book. To avoid disappointment readers who require one or more copies are asked to place their orders at once with the Secretary of the

Planting Directory of Southern India

U.P.A.S.I.

The Concern which is sole distributor, working through some 8,000 agents, for the majority of the leading French Journals owns the name of Hachette. It does not believe however in burying the hatchet; it prefers to brandish it aloft.

A hatchet rampant would afford the firm a most suitable device for a coat of arms.

A Corner in Coffee

Hachettes are wholesale dealers in Stationary as well Distributors of books. The small traders, dairymen and grocers whom they subsidize as their distributors, are compelled to retail Hachette stationary exclusively or to lose their agency, which more often than not is a mainstay standing between them and heavy, indeed possibly overwhelming, loss.

The hatchet rampant, having thus dealt with non-Hachette Stationary, is now entering the lists of behalf of the Debray 'Standard' Coffee. In liason with a great agency which holds the contracts for commercial

publicity in the great Paris papers, it intends to suppress any Coffee advertisements save those of the Debray 'Standard' brand.

Interesting developments are expected, as The Grocers' Syndicate which is a very influential body is expected to fight the Combine tooth and nail.

Mr. MAURICE WATTS

Her Highness the Maharani Regent has appointed a Christian, Mr. Maurice Watts, to the Dewanship of Travancore.

The appointment has been made not on account of, but rather despite his Christianity; which of itself might naturally enough be regarded as a disqualification from the traditional standpoint of the orthodox ruler of a Hindu State.

It has been made, we must therefore conclude, because Her Highness considered Mr. Watts the best man for the post. The Regent is to be congratulated on this unmistakable indication that ability, and not family or communal feeling is the touch-stone by which applicants for State appointments must abide. Her Highness in this, as in many other directions, has set an example which should prove of incalculable worth.

By upbringing and heredity the new Dewan is attuned to the political, social, and religious atmosphere of Travancore. By experience in travel he has gained immunity from parochialism and acquired a breath of vision which should prove of untold value whenever partisan questions, which rival vested interests are incapable of seeing in proper perspective, have to be resolved.

All that we have been able to learn of Mr. Watts's career assures us that he will rise nobly to the occasion which has so suddenly changed the whole current of his life; and that he with Mrs. Watts, will ably second Her Highness's efforts to make the regency period a noble one in the by no means inglorious annals of the State.

Dr. COLEMAN ON THE IMPORTANCE OF AGRICULTURAL RESEARCH

Dr. Leslie C. Coleman, Director of Agriculture, Mysore State, who is proceeding on four months' leave preparatory to retirement, made the following remarks when replying to an address presented to him by the Agricultural Union on the 3rd instant at the Dally Memorial Hall :—

My first work in this State had to do with the investigation of certain serious plant diseases and insect pests which were responsible for very heavy losses, but unfortunately for me within less than a year of my arrival in Mysore, Dr. Lehmann left the service and I was called upon to direct the combined activities of the Department of Agricultural Chemistry and the newly formed Subordinate Department of Mycology and Entomology.

Very shortly after I took charge of the agricultural work in the State I was asked by the Dewan, Mr. T. Ananda Rao, that patriot and true gentleman who has passed from our midst, what I considered to be

necessary for the development of agricultural work in the future. I impressed upon him the fact that development of agriculture in this or any other State must be based on the solid foundation of scientific investigation. I pointed out further that no one man could possibly investigate more than a small fraction of the problems which Mysore agriculture faced even had he the superhuman ability to fit him to do so. I therefore urged upon him the necessity of giving local men who had after preliminary employment in agricultural work shown their capacity, the very best foreign training possible. Lastly I assured him that I was prepared to devote the rest of my working days to the task of establishing in this State an Agricultural Department manned by Mysoreans which would endure and which would be able to deal in an adequate manner with the problems facing the State's main industry. I was aware then and I am even more keenly aware now that agricultural improvement is a thing of slow growth. I have never for one moment been deluded into the expectation that even under favourable conditions I should in the few short years I could spend in this State be able to witness more than the first-fruits of our work towards the improvement of Mysore agriculture.

Let us turn to the future. The development of agricultural work in this State is being handicapped at present and seems likely to be handicapped for some years to come by the same factor which is handicapping all development in the State—the lack of funds. It has personally seemed little short of a tragedy to me that just when our scientific work has begun to yield results, which are of incalculable value to our agriculture adequate funds are not available to expand that scientific work and to introduce those results in a rapid manner throughout the State. If we take the long and statesmanlike view however this is not a matter of fundamental importance. As I have already said progress in agricultural improvement is certain to be slow and, while this check to our activities undoubtedly prevents us at present from enabling Mysore ryots to increase their wealth by many lakhs of rupees, looked at from the point of view of a hundred years which in itself is no great period in the development of a nation's main industry, a check of a few years, however disheartening to the actual workers involved, may be looked upon as of comparatively insignificant importance. The more real danger arising from this condition is that the men engaged in the work may lose heart and that that divine enthusiasm which should actuate every scientific worker may be deadened or be altogether lost. I cannot think of few more useless impediments to a State than an Agricultural Department whose fires have been quenched.

The other danger to which I would like to refer is the danger that the relative importance of various branches of the department's activities may not be duly recognized. The natural tendency in human nature is to recognize the value of the obvious and the external. Now in the work of the agricultural and sister departments the things of obvious value are the results which have been and are being demonstrated to the agriculturists of this State and which have already enriched them by many lakhs of rupees. It is perhaps somewhat difficult to realize to the full that these results have been obtained only after prolonged scientific investigation and experiment. In both our representative bodies, the Legislative Council and the Representative Assembly, there has been for many years past a fairly steady insistence on the importance of increasing district staffs and providing more funds for the direct work among the ryots. On the other hand there has been much less evidence, on the part of our non-official

legislators, of interest in the development and expansion of scientific work upon which the district work must depend for its success. I should like here to utter a most solemn warning. If our scientific work is starved, no matter how much money is lavished on demonstration and propaganda, the Agricultural Department and its sister departments will die and their work will come to nought. To you, gentlemen, members of this union who through the work conducted on your own fields and through your close association with the Agricultural and its sister departments are in a position to appreciate better than others the paramount value of scientific investigation, I would like to give the very special and sacred duty of holding aloft the torch of science in our popular assemblies wherever they are held. If you do not do this I fear as years go on and an increasing power of self-government may be given to the people of the State, the structure which we have spent so many and laborious years in rearing, will crumble to dust.

ANNUAL REPORT FOR 1924-25 OF H. T. ASHPLANT, A.R.C.S., RUBBER SPECIALIST, U.P.A.S.I.—(continued)

Root diseases in Rubber-Uprooting of Jungle Trees

In certain of the areas of Malaya and Dutch East Indies large numbers of trees are lost annually from fungal root diseases, the most destructive of which is that caused by *Fomes Semitostus*, to give the parasite its more familiar name. As the original attacks of *Fomes* generally radiate from old decaying jungle stumps on which the parasite secures its first foothold on an estate, the usual precaution advised against this and other root diseases is to remove or burn all jungle stumps and fallen timber previous to or immediately after planting. In many rubber districts the precaution just mentioned is beyond all question a wise one, and in the long run is economically justified. It is unfortunate, however, that in their zeal for good sanitation, some of our rubber advisers have been too prone to assume the universality of these root diseases of rubber, and they have recommended expensive preliminary clean clearing regardless of local circumstances, or indeed of climate.

In this report I am concerned with South Indian problems and would only remark in regard to the question of clean clearing generally that local conditions should be studied before making a decision. It may be pointed out here that even in Malaya and Sumatra where the *Fomes*' trouble is fairly common, large belts of rubber are known which are practically free from *Fomes*, and this despite the fact that little preliminary clearing has been done. Coming to the lesser rubber countries in three of these visited in recent years by the writer, serious root diseases of the local *Hevea* have not been recorded.

South India is such a hot bed of unpleasant fungal affections that the presence of all recorded root diseases of *Hevea* would almost be taken for granted. Yet, if we except *Ustilina* which is essentially a wood parasite with no especial predilection for roots above other organs of the tree, it may safely be stated that *Hevea rubber in South India is entirely free from root disease of any sort*. The writer has personally looked into a large number of alleged cases of root disease, and during the last four years many suspected examples have been submitted to the Mycological Station

for report. In every instance, however, where the trouble has not been lightning shock, the supposed root disease has turned to be *Ustilina*, associated usually with Patch Canker attacks at the collar.

The issue of this clean bill of health in regard to root diseases of rubber in South India should allay any fears as to the possible dangers of leaving decaying jungle timber about. My object in embodying it in the present report is to try and avert further needless expenditure on clean clearing, for now that the financial outlook for rubber is improving, companies are inclined to spend money on what they believe to be capital improvements. On two or three estates visited by me in the course of the year, belated endeavours were being made to get out the remaining jungle stumps. I was vividly impressed on one instance by the futility of the work. The day when the jungle timber on this particular estate afforded a nutritive lodgment to harmful fungi, and were a potential danger to the rubber had long passed, and through the action of more beneficent organisms the crumbling residues were now in process of being resolved back into mother earth. Having done all the harm possible, the continued disintegration of the logs and their incorporation with the soil could now only have good effects, and would in fact, improve the texture and composition of the soil immensely. By burning the decaying logs at this stage, not merely the nitrogen is wasted, but the better physical effects that the organic residues would have on the soil are lost altogether.

It was pointed out above that the universal necessity for clean clearing on rubber estates usually urged by mycologists cannot be admitted. Whenever a new opening is contemplated, the experience of estates already in the district should be consulted. From this and a study of the local soil conditions planters can estimate the magnitude of the root disease menace and whether clean clearing is advisable or not. Stress should be laid here upon the importance, where clean clearing has been decided upon, of completing the work quickly. Harmful fungi should not be given time to establish themselves on the jungle stumps and permeate the soil round about with their mycelia, for once a hardy parasite like *Fomes* is introduced, no measure which is practicable will stop it from going ahead. It is my firm conviction, based on an exceptionally wide practical experience of root diseases, that the *clean clearing of rubber estates cannot achieve its object unless it is done before planting, or at the latest, within a year after planting*. The uprooting and burning of jungle stumps after estates have been going for even two years is of extremely doubtful value; their destruction in the third and later years is merely a waste of money.

Anaikolam Rubber

As there is some possibility of this block of rubber, which conveniently adjoins the Mycological Laboratory, being available later on as an Experimental Station, it was deemed advisable to get the tapping tasks suitably mapped out, so that useful yield records, from the commencement of tapping onwards, can be obtained. A good deal of work has been done in the latter part of the year under review in counting and measuring trees, and laying out the respective tapping plots. Tapping, which was started about the middle of March, is carried out alternate daily on half circumference. Later on if the Experimental Station project is realized, different tapping systems will be tested. Meanwhile, the tapping of all blocks on

a uniform system is likely to yield useful information on their comparative values. Yields from the different plots are kept separately and are being measured daily at the Mycological Laboratory.

Girth records of these Anaikolam trees have been taken annually since June 1921, while studies of the bark anatomy of many of the trees have been made from time to time, and the latex rings enumerated. Now that the trees are in tapping, it will shortly be possible to collect some accurate data on such matters as the relation of the number of latex rings to rate of growth and yield, and to clear up other interesting points.

New Tapping System

In October last, on the Tenmalai Experimental Station, trials were begun of a new system of tapping in which the withdrawal of latex is effected from the upper as well as the lower regions of the tree. The experiment comprises three plots, in one of which tapping on two cuts is carried out in opposite directions on alternate days; in the second every third day; and in the third plot once weekly.

Comparisons of the yields with those got by means of the ordinary tapping systems are somewhat invalidated by the fact that all the trees embraced in this experiment have been rested for the last two or three years. In order to get some idea of the extent to which the long rest is favourably influencing the yields, a parallel control experiment was started in December on an adjoining three blocks of trees, the tapping on these being on the usual single cut downwards only.

Allowing for the drop as the dry weather became intensified in January, the crop figures so far obtained show up the new system quite favourably. Eliminating the first tapplings, carried out before wound response was fully manifested, the average yields of dry rubber per tree per tapping in the three blocks and their controls were:—

			<i>Yields per Tapping</i>		
			Alternate day tapping	Third day tapping	Once weekly tapping
			oz.	oz.	oz.
November	...	...	1.1	1.24	1.29
December	...	...	1.06	1.28	1.67
January	...	...	0.8	0.93	1.23
Control single cut in one direction only.					
December	...	...	0.76	0.71	0.73
January	...	...	0.71	0.59	0.56

Tar and Oil Mixtures

Attempts have been made on one or two local estates that have suffered from wild animal damage to secure protection by painting the basal portion of the rubber trees with mixtures of tar and crude oil. This opportunity should be taken of pointing out that applications of crude or machine oils to the bark of rubber trees may be very injurious. The oil, particularly in situations where the tree surface is exposed to the sun, tends to penetrate deeply into the cortex and many cases are known where large areas of cortex have been killed off right to cambium.

Colours for the Incorporation in Latex for the Manufacture of Coloured Crepe Sole Rubber, etc.

Little has been heard lately of coloured crepe rubber owing to the abandonment of raw crepe mat manufacture by estates. The tackiness developed in such mats by their exposure to sunlight, and perhaps also the fading of the cheap and ill-chosen colours used in these mats, brought them into disfavour. A demand has lately arisen for coloured sole rubber, and several consignments of brown and black crepe soles have been made up locally for the Indian and Colonial markets. There is no doubt that the appearance on the market of a good brown sole crepe imitative of leather will incite further demand. While the demand for uncoloured sole crepe of first quality is still far from being fully satisfied, it can scarcely be expected, since so many estates are now making this, that the premium will be long maintained. For the rubber estates, however, that are enterprising enough to turn out standard brown and black sole rubber, a premium is probably assured for some time to come. Apart from this aspect, the appearance on soles of a crepe which harmonizes in colour with the leather used in footwear will appeal to fastidious folk, and is likely to assist that greater employment of rubber which we all desire.

From the numerous experiments made during the last year or so, the Rubber Specialist is in possession of a good deal of information on the above subject and can advise estates wishing to produce out rubber of any particular colour, of the best colouring ingredient for their purpose. It may be noted here that the mats and other articles that were coloured with materials that were recommended by this Station have now been in use for nearly three years and show no signs of fading.

Lactometers

The value of a regular Lactometric control of tappers' yields is becoming more realized. During the year a number of instruments were graded and readjusted for estates.

Rubber Oil

The distillation of rubber has lately come into prominence, as the result of a few experiments carried out by a F.M.S. Pharmacist, who claims that the destructive distillation of rubber has economic possibilities. Instigated probably by reports of these claims, one or two of the local rubber planters rigged up stills, and did some rubber distillations. Such astounding yields were reported, that it seemed to me desirable to check the figures obtained, by carrying out the rubber distillations in a proper still under controlled conditions. The business of oil distillation, it may be admitted, is not one for which this station or staff equipped, but if as it appeared, the destructive distillation of the lower grades of rubber held any promise of yielding products of greater value than the crude rubber itself, the possibility was well worth investigating.

Several careful distillations were made both of tree and earth scrap and the information obtained has been embodied in a separate report. With regard to the results, it will suffice to say here that they were decidedly unfavourable to the claims put forward. From 20 lbs. of rubber there was obtained by dry distillation somewhere about $\frac{1}{4}$ of a gallon of a light oil, suitable for driving motors, together with a slightly smaller quantity of a heavier brown oil.

Assuming that the whole of the light oil is comparable to petrol in its power uses, and giving a modest value to the heavy oil, a calculation shows that the total value of the oils obtained from 1 lb. of rubber to work out at less than $1\frac{1}{2}d$. It is evident from this that any idea of obtaining commercial quantities of power spirit from rubber must be dismissed as a wild dream. Optimists, totally uninformed of the chemical nature, and destructive products of rubber, will probably still continue to boost this new oil field. However, to most people, the proposal to destroy 1 lb. of a commodity that is fairly undervalued at $\frac{1}{2}$ to get an inferior oil that is possibly worth three-half-pence, will scarcely seem inviting.

Reports on Recent Tour in Malaya and the Dutch East Indies

Two reports—one on 'Tea Helopeltis in Java' and the other on the 'Recent Developments in the Rubber Planting Industry' were written during the year under review, and have been issued by the U.P.A.S.I. in bulletin form. The writing of these reports, which were fairly comprehensive, totalling in all some 110 closely printed octavo pages, left little time for other work during the months immediately following my return. The rubber report was very favourably received and aroused so much interest in rubber circles outside India that the Rubber Growers' Association has had it reprinted and circulated to members.

Visits to Estates

Tours have been made in nearly all the rubber districts of South India. Spraying was the subject of greatest general interest, as also the most important, and planters requiring information or instruction on this were given every possible assistance. By personal visits as well as by circulars and articles in the *Planters' Chronicle*, endeavours have been made to bring home to rubber planters the great value of this operation in arresting the deteriorating of their estates.

General

Several specimens of diseased plants as well as faulty rubber samples have been received at the station. All of these have been examined and reported on. No new disease or pest of rubber has come under my notice during the year under review.

Staff

The Mycological Station Staff still consists, besides the undersigned of two sub-assistants, T. R. Rama Iyer, and T. V. Cheriako. The work of both these assistants has been very satisfactory.

TEA IN NORTHERN INDIA AND CEYLON

The following comparison (by Mr. C. R. Harper, Chemist to the Indian Tea Association) between the North Indian and Ceylon Tea Industries, supplements in an interesting manner Mr. D. G. Munro's report on his tour in Assam.

We take it, with due acknowledgments, from the *Indian Tea Association's Quarterly Review*.

'The yield varies widely in different districts both in North-east India and Ceylon. In Ceylon the average yield for 1923 was about 434 lbs. per acre. The yield varies from about 700 lbs. in the low country to 300 or 400 lbs. in the high grown estates.'

In North-east India the crop has fluctuated greatly during the last two or three years owing partly to restricted plucking after the tea slump in 1920 and, later, to labour shortage. In 1923 the best yielding district was Lakhimpur giving 722 lbs. tea per acre. This was followed by Darring giving 613 lbs., Sibsagar 592 lbs., Sylhet 564 lbs. and Cachar 535 lbs. The Dooars averaged 574 lbs. and Darjeeling including the Terai, 430 lbs. per acre in 1923. Over the whole of North-east India the 1923 crop averaged about 542 lbs. per acre.

In 1919, the year of maximum output in Ceylon, the crop averaged about 520 lbs. per acre. In 1915 the heaviest year in Assam the crop rose to about 680 lbs. per acre and in 1919 record a yield of 740 lbs. per acre was obtained in the Dooars.

The prices of Indian and Ceylon tea are of interest. Thus in 1923 the average Home sales showed the following :—

Northern India	1s. 6·76d.
Southern India	1s. 6·14d.
Ceylon	1s. 7·38d.

The prices of Ceylon teas vary according to elevation and season. The highest values are obtained in January, September and October and the lowest in June and November. The prices of the high grown teas average from ten to thirty cents (2d. to 5d.) better than the medium and low grown teas on the Colombo market. The low grown teas generally bring a slightly higher price than the medium grown because they are better made.

The writer then goes on to the subject of the climate and the effects of the monsoons and draws comparisons between Indian and Ceylon tea soils. Then he comes to manuring and cultivation and proceeds as follows :—

The manuring of tea is a much older practice in Ceylon than in Assam. The reason for this is probably that tea was first put out on old coffee land which was partially exhausted. In Assam the first manuring consisted in top dressing the soil from the ' hullahs ', and ' bheels.'

In Ceylon there have been few carefully carried out manuring experiments and most manure mixtures are devised by visiting agents who work chiefly on their own experience. The result is that there is a tendency to manure in groups of estates rather than on types of soil.

Manuring is sometimes done biennially although the benefit of annual applications has been demonstrated. The pruning mixture is added in February or March or a month before pruning. The other mixture is added about eight months after pruning. In general, manuring may be carried out at all times except during the drought or the monsoon. A common time for application is with the first rains.

Cattle manure is seldom used. Lining is not popular but a small quantity, 500 lbs. may be buried with the prunings although for this

purpose basic slag is preferred. It is considered that the nature of the soil acidity in Ceylon does not call for lime so far as tea is concerned.

Some typical pruning mixtures are made up as follows :—Burnt lime, nitrolim, basic slag and nitrate of potash at the rate of 350 lbs. per acre. This mixture is arranged to give about 14 lbs. nitrogen, 8 lbs. phosphoric acid and 17 lbs. potash. Another is made up of—groundnut cake, fish guano, blood meal, steamed bone meal, nitrate of potash—at the rate of 700 lbs. per acre—containing about 53 lbs. nitrogen, 25 lbs. phosphoric acid, 20 lbs. potash.

Other mixtures for ordinary use are still more complicated. For example, one gives—groundnut cake, fish guano, concentrated super nitrate of potash, muriate of potash, milled fish, sulphate of ammonia—at the rate of 500 lbs. per acre.

Another gives—groundnut cake, fish guano, blood meal, nitrolim, steamed bone meal, mineral phosphate, nitrate of potash, sulphate of potash—at the rate of 750 lbs. per acre.

Although many of the mixtures are uneconomical and some unscientific yet they mostly combine slow and quick acting manures which give good results. These mixtures offer a distinct contrast to the simple two or three component mixtures used in Assam.

A pruning mixture may be made up to supply the three constituents, as follows :—

Nitrogen-phosphoric acid potash equal to $42\frac{16}{32}$ lbs. per acre. An ordinary mixture may be made up to contain.

Nitrogen-phosphoric acid potash equal to $42/16\frac{1}{2}32$ lbs. per acre. Pruning mixtures are usually rich in phosphates.

Green manuring in the manner that it is carried on in Assam is not employed in Ceylon. The quick crop like cowpeas (*Vigna catiung*) sunn hemp (*Crotalaria jancia*) or dhaincha (*Sesbania aciculata*) which can be grown and hoed in six weeks is not used.

As shade and a source of green manure, dadap (*Erythra lithosperma*) is the most popular tree below 4,000 feet. It grows best at about 1,600 feet and is generally planted about 20 feet square and lopped at twelve feet. The lopping is done three or four times a year, once with deep cultivation when the loppings are buried. At other times the loppings are left as a mulch. At Peradeniya it has been found that the weight of the loppings average about 10,000 lbs. per acre with two loppings a year, 20,000 lbs. with three loppings and 23,000 lbs. with four loppings in a year.

Trials with *Gliricidia maculata* have shown that this tree gives almost double the loppings of dadap. It grows well up to about 2,500 feet. *Albizia molucana*, the Ceylon Say, is grown as shade up to 4,000 feet and although it can be lopped is not commonly used in that way.

In the higher gardens above 4,000 feet the wattle (*Acacia decurrens*) is used for shade and lopping and the silver oak (*Grevilla robusta*) as shade and as a wind belt. The latter are not lopped. Blue gum (*Eucalyptus globulus*) is also used as a wind belt.

A visitor from the Assam tea districts is struck by the freedom from weeds of the Ceylon tea estates. The soil is usually quite clean and any isolated weeds which appear are scraped up and burnt or collected and buried. The result is that soil erosion in Ceylon presents a serious problem. On this account manuring must be heavy to make up for the plant food lost by wash.

Arguments put forward in favour of clean weeding included the fact that it is cheaper to keep the estate absolutely clean than to weed periodically. It must be remembered that in Ceylon there is no period of drought as there is in North-east India when weeds cease to grow or do so at a very slow rate. Another point is that with weeds come leeches which are so serious in some districts that coolies are unable to go in to pluck the bushes.

REPORT ON THE ASSAM TOUR OF MR. D. G. MUNRO, GENERAL SCIENTIFIC OFFICER—(continued)

The Climate of Darjeeling

Seasons largely follow the course of those in the plains (cold weather, hot weather and rains) but there are two short periods which correspond in some ways to an English autumn and spring. The cold weather is divided into two portions. The first at the end of the rains is mild and pleasant and the atmosphere tolerably clear and generally free from dust and cloud. This is the Autumn, if autumn, there be at Darjeeling. Towards the beginning of December the first touch of winter comes with hoar frost and at the end of that month and in January the ground is sometimes frozen the whole day long. The air is cloudless, dry and bracing. In the early morning it is very cold, but later in the day there is bright sunshine and it becomes pleasantly warm although it remains bitterly cold in the shade. Occasionally snow falls in January to February, but such an occurrence is comparatively rare.

In March a brief Himalayan spring is ushered in by high blustering winds. It is very short lasting only till the end of the month. During April and May there is a short summer accompanied by showers of rain which become heavier and more frequent till the setting in of the rains in the beginning of June. For three months after this Darjeeling is exposed to the full force of the monsoon, drenched with rain and shrouded in mist. The alluvial plain between it and the mouth of the Ganges is almost a lead level; the foot of the hills being only 300 feet above sea-level and consequently the vapour laden southerly winds from the Bay of Bengal reach the outer range of hills without impediment. The humidity is very great and Darjeeling is at this period of the year one of the dampest stations in India.

The rains continue during June, July and August, 24 inches average falling on the 1st, 32 inches in the 2nd and 26 inches in the 3rd. The rainfall varies greatly in different parts of the station. In September a decided change takes place, the continued rainfall giving way to showers which becomes less and less frequent while the sun shows itself oftener and for longer periods. About the beginning of October the rains cease altogether. Even then, however, the weather cannot be depended upon the Darjeeling is subject to almost constant cloud and fog which rise from the deep valleys and hang for days together over the station.

The Darjeeling District consists of valleys in which the elevation above the sea may not be more than 1,000 feet and hill ranges which rise to a height of 10,000 to 12,000 feet. Climatic conditions are naturally varied more especially as regards temperature. In the Terai and lower valleys the heat is tropical but in the town of Darjeeling the temperature is that of a temperate zone and only about two degrees above that of London.

Temperatures of London, Darjeeling and Ootacamund are shown below :—

Average Annual Temperature of London, Darjeeling and Ootacamund

	London	Darjeeling	Ootacamund
Average maximum temperature ...	57·6°	58·5°	65·6° F.
Average minimum temperature ...	42·7°	47·5°	49·5° F.
Average air temperature ...	50·2°	52·7°	...

The cold weather months November and December are almost rainless. Light showers may fall in January and February. Rainfall is heavier in March and shows a considerable increase in April and May. Heavy rainfall is generally received from June to September especially on the lower slopes. On the wettest month, July, Mangpu (4,700 feet) receives 32 inches, Kurseong (about same level) 45 inches and Darjeeling 32 inches. The total fall during the monsoon at these stations is 116·153 and 114 respectively. The monsoon rainfall at Siliguri in the Terai is 116 inches. At Pedong at a height of over 600 feet it is 90 inches while in the lower hills to the extreme east it is 200 inches.

The figures shown below are the average from the earliest year recorded, i.e. 1905 :—

Station	Up to 1920	November to February	March to May	June to October	Average, annual
Darjeeling ...	123·2	2·28	13·92	105·60	121·80
Kalimpong ...	101·9	2·14	10·77	76·61	89·52
Kurseong ...	132·9	2·39	18·23	140·10	160·72
Mangpur ...	118·3	2·09	16·30	105·66	124·05
Pedong ...	138·0	2·99	17·30	83·14	103·43
Siliguri ...	109·6	1·57	15·30	105·55	122·47

During the last number of years the climate has been systematically studied at Tocklai and as observations accumulate it becomes easier to define the relationship between and weather and crop production, condition of manufacture and appearance of diseases and pests. In tea in Northern India the appearance of Brown Blight is associated with a hot scorching sun, Red Spider, with a bad growing period especially drought, and Blister Blight with cold winds under certain conditions blowing from the hills.

The optimum temperature for the growth of tea has not yet been settled neither has the most suitable rainfall. The former factor must vary very considerably with other conditions and the latter is no doubt largely dependent on the type of soil and subsoil.

Rainfall

So far as rainfall is concerned there are found to be two critical periods in the season, the first in March, April and May and the second in September and October. It is now thought that from the end of January to the middle of April constitutes the first critical period and on the rainfall received in these months depends to a great extent the yield of leaf and the success of nurseries and supplies. During the period, if there is a drought, unpruned tea suffers much on account of the amount of leaf it is carrying and pruned tea will not come away and produce leaf till the rain comes.

Temperature

As temperature increases, so the rate of growth increases till the thermic optimum is reached and then growth decreases. Below 42°F. plant growth ceases and at present the accumulated temperature above 42°F. is used as an index of favourable condition for plant growth. Between the optimum and the vital temperature (that is 42°F.) the rate of growth is doubled for every 18°F. rise in temperature. The exact optimum temperature for the growth of tea is not definitely known yet, but it is believed to be about 90°F. This optimum will be lower when the time of exposure is longer and higher when the time of exposure is shorter.

Humidity

Closely correlated with rainfall and temperature regulates the humidity of the atmosphere and that humidity has a tremendous influence on the growth of the tea crop is undoubted.

It is possible to distinguish between the effects of temperature and humidity on the growing plant. Temperature influences the *rate* of growth so that high temperatures tend to produce larger leaves. The absolute humidity influences the *amount* of growth and forces the bush to produce a greater number of shoots. It is thus seen that a comparatively cool moist atmosphere (that is about 80°F.) should produce a larger number of slower growing shoots and is preferable to hot moist one.

So far as withering is concerned the relative humidity is all important. If the atmosphere is saturated a good wither cannot be obtained and it is impossible to make the best teas. Generally in Assam a good wither is possible but in the Dooars it is common for the atmosphere to remain saturated for long periods.

Another problem in this connection concerns the question of final firing tea. Generally it may be said that the optimum moisture content of tea for the European market is between five to six per cent and it is usual to final fire teas before they are boxed in order that they shall contain this amount of moisture. In the earlier part of the season, especially in April and May, it has been observed that teas do not require final firing, and that this process at that particular time not only brings about a loss in weight of saleable tea but also destroys quality. After the monsoon breaks and moist air comes up the valley, stored tea practically always requires final firing but the only true test is a direct determination of the moisture-content by drying a weighed quantity of tea in a steam oven and estimating the loss in weight.

Cold weather mists in the Assam Valley.—The formation of river mists is undoubtedly due to the extreme ranges of temperatures experienced on the flood plain area along the river bank. A series of temperature observations at Kukilimukh showed that the river temperature was steady at about 62°F. day and night while the air temperature varied from 50°F. at 7 a.m. to 68°F. at noon and down again to 61°F. at 10 p.m. The value of the cold weather mists is a question of interest to the tea industry. The amount of dew deposited as measured by a rain gauge often amounts to 0.01 inches and although a rain gauge is not a suitable instrument for the measurement of dew it indicates the quantity of moisture deposited. This amount is of little value to the soil and seldom makes any impression on the mulch. The great benefit derived from the mists is that evaporation from the soil ceases and the rate of transpiration from the leaf is greatly reduced. Thus in December and January the loss of moisture is often reduced to a minimum for about sixteen hours of the day an advantage greatly missed by many of the sunbaked gardens outside the areas regularly visited by mists.

Geological formations.—The geological formations from which the soils of the South Indian Planting Districts have been formed are very old and stable when compared to those of Northern India. The Tea Planting Districts of Southern India are generally to be found in the hills formed by the Western Ghats. The Western Ghats form the great sea wall for the west side of the Peninsula with only a comparatively narrow strip between them and the shore. The Eastern and Western Ghats meet at an angle in the Nilgiris.

The entire geography of the two coasts of the Peninsula is determined by the characteristics of these two mountain ranges. On the east the country is comparatively open and every where accessible. Along the west coast, only a narrow strip of low land intervenes between the barrier range and the sea board. The inhabitants were cut off from communication with the interior and were left to develop a civilization of their own. Again the east coast is a comparatively dry region. Except in the Deltas of the great rivers the crops are dependent upon a local rainfall which rarely exceeds 40 inches in the year. The Eastern Ghats are of little interest from a planting point of view until the Biligiri Rangan Hills which lie close to the Nilgiri plateau are reached.

On the west all these physical conditions are reversed. The rivers are mere hill torrents but the South-West Monsoon brings an unfailling rainfall in such abundance as to clothe the hill slopes of the southern portion with most luxuriant vegetation. The average rainfall from Surat to Malabar along the coast averages 100 inches which increases to 300 inches high up among the mountains. The Western Ghats through Mysore, Coorg, Madras and Travancore is the main seat of the tea and coffee planting industry in Southern India. They bound the State of Mysore on the west separating it from the Madras District of South Kanara, and run from Chandragutti (2,794 feet) in the north-west to Pushpagiri or the Subramanya Hill (5,626 feet), in the north of Coorg, and continue through Coorg into Madras. In the west of the Sagar Taluk, from Govardhanagiri to Devakonda, they approach within ten miles of the coast. From there they trend southwards culminating in Kudremekh (6,215 feet) in the south-west of Kadur District which marks the water shed between the Kistna and Cauvery systems. They then bend east and south to Coorg, receding to forty-five miles from

the sea. Here, too, numerous chains and groups of lofty hills branch off from the ghats eastwards, forming the complete series of mountain heights south of Nagar in the west of Kadur District. Gneiss and hornblende-schists are the prevailing rocks in this section, capped in many places by laterite, with some bosses of granite. The summits of the hills are mostly bare, but the sides are clothed with magnificent evergreen forest.

In the Madras Presidency the Western Ghats continue in the same general direction, running southwards at a distance of from 50 to 100 miles from the sea until they terminate at Cape Comorin, the southernmost extremity of India. Soon after emerging from Coorg, they are joined by the range of the Eastern Ghats which sweep down from the other side of the Peninsula; and at the point of junction they rise up into the high plateau of the Nilgiris of which the loftiest peaks are Doddabetta and Makurti, both over 8,000 feet high.

Immediately south of this plateau the range, which now runs between the districts of Malabar and Coimbatore, is interrupted by the Palghat gap, the only break in the whole of its length. This is about sixteen miles wide, and is scarcely more than 1,000 feet above the level of the sea. The Madras Railway runs through it, and it thus forms the chief line of communication between the two sides of this part of the Peninsula. South of this gap the Ghats rise abruptly again to even more than their former level. At this point they are known by the local names of the Anaimalais, or 'elephant hills' and the high range and the minor ranges they here throw off to the west and east are called respectively the Nalliampathies and the Palni Hills. On the latter is situated the Sanatorium of Kodaikanal. Thereafter, as they run down to Cape Comorin between the Madras Presidency and the Native State of Travancore, they resume their former name.

North of the Nilgiri Plateau the eastern flank of the range merges somewhat gradually into the high plateau of Mysore, but its western slopes rise suddenly and boldly from the low coast. South of the Palghat gap, both the eastern and western slopes are steep and rugged. The range here consists throughout of gneisses of various kinds, flanked in Malabar by terraces of laterite which shelf gradually down towards the coast. In elevation it varies from 3,000 to 8,000 feet above the sea, and the Anaimudi Peak (8,837 feet) in Travancore is the highest point in the range and in Southern India.

The South Indian estates are all on hill sides which while not so rugged as those immediately adjacent to Darjeeling are much steeper than the teelas of Cachar and Sylhet. The soils *in situ* vary from light gravelly lateritic soils to fairly heavy clays. The formation known as laterite, which is almost peculiar to India, or at least to the tropical parts of the Old World, has generally the appearance of a soil. It is presumed that the formation of these lateritic soils is due to the washing out of the silica from the original rocks thereby increasing the percentage of iron and aluminium compounds.

The degree to which this laterization has taken place determines the character of the soil. When a clay soil is young, it is also sticky but as weathering takes place the stickiness tends to disappear and it is possible that this is the stage which has been reached in some parts,

Normally these lateritic soils vary in colour and are mottled with various tints of brown, red and yellow and sometimes a considerable portion of white clay. South Indian estate soils may contain up to 30 to 35 per cent iron and alumina while Northern Indian estate soils contain very much less.

Where soil has been washed and transported into pockets by water some excellent deep pieces of land are formed which give magnificent yields. On the other hand where wash is heavy and exposure great poor results are obtained.

In Northern India on the other hand, especially in the Assam Valley it is possible to go through miles of tea planted on land which is practically flat. The geology of the Assam districts has been surveyed by Harler in his *Notes on the Formation of the Assam Valley*.

The Shillong Plateau on the Assam range which comprise the Garo Hills, the Khasia and Jaintia Hills and the Mikir Hills may be taken as the starting point in the history of the Assam Valley. The core of this land-mass is an ancient gneiss similar to that forming the South Indian Peninsula. Some of the cuttings from the hill section of the Lumding-Chittagong Railway show the formation. At one period in the geological history the Shillong Plateau was at the head of a southern ocean of which the Bay of Bengal was a part and India was joined to Africa on the west and Australia on the east. Later on, the rock known as the Cherra sandstone was deposited on the southern flank of the Assam range.

To the north-west of the range was one extremity of the Mediterranean Ocean of those days which included a great part of the present Atlantic Ocean most of which is now Europe, Tibet and the Himalayan range of Northern India. A great gulf of this ocean extended into what is now Sind and Cutch and up to the Narbada Valley in the west. A narrow neck of land somewhere in the neighbourhood of the Shillong Plateau marked the boundary between the old Southern Ocean and the old Mediterranean Ocean. The eocene period which saw the dawn of recent species witnessed the sinking of much of the land in the Indian Ocean and the separation of India from Australia and Africa followed by the rising of the Tibetan Plateau and the upheaval of the Himalayas. Intermediate stages gave rise to the coal measures in Sibsagar and the Mikir Hills.

At a later stage in the development of the Assam valley the waters of Tibet rushed across what is now the Patkoi range and Burma, with subsidiary outlets across part of the Assam range and into what is now Bengal. Thus thick deposits of gravel and silts were put down at the expense of the plateau which was rising in Tibet. The Miju range kept the general movement of water to the south and west and with the rise of the Himalayas and the Patkoi range the trend of the Assam Valley was definitely marked. In later period various inundations and floods laid alluvial deposits on the floor of the Assam Valley. With the rise of the Eastern Himalayas and the uplift of the Patkoi range, the detritus from the streams of the Tibetan Plateau was naturally laid down in the newly formed Assam Valley. This deposit is known as the old *alluvium*. With the subsequent sinking of the Brahmaputra Valley another great wash out occurred and the alluvium filling the valley was mostly washed away or covered with a fresh deposit which is now called the new *alluvium*.

The old alluvium now generally taken from a red loam which may be seen to-day on the Red Bank of the Dooars, the Bishanath Red Bank and

in various places among the foot hills. In many places in the Gologhat districts, the Nowgong districts and Tezpur the old alluvium just appears through the new alluvium and on these many of the tea gardens are put out. In the lower outcrops geologists consider that owing to the mixing that has taken place it is impossible to say whether the soil is true, old alluvium or an older new alluvium.

The soils of the Brahmaputra Valley then are all alluvial, but they differ considerably in their physical condition. Near the river generally the soils are sandy while nearer the hills they are heavier and in some back waters the rate of flow of water was slow, they are clayey in nature. The soils of the Darjeeling District vary according to the folds and contortions occasioned by the rising of that range. The tea soils of the Dooars and Terai are mostly old alluvium while most of the tea in Cachar and Sylhet is grown on the soil derived from the weathered tertiary sandstone of which the lower foot hills of both sides of the valley are mainly composed. Peat or 'Bheel' soils are also used for tea growing in these districts.

Soils like those of Darjeeling and as far as is known those of the Planting Districts of Southern India were mainly formed *in situ* except where comparatively small areas in hollows have been laid down by wash from the neighbouring slopes.

It may be of interest to note that in Darjeeling owing to the steepness of the land the pockets which are filled up from wash contain the heavier particles of soil while the finer clay particles were carried further on. The soil pockets where these conditions obtain is therefore sandy and not clayey in nature as might have been expected.

Whether these soils have been laid down by the action of water or formed *in situ* or whether they are sandy, loamy, clayey or peaty in nature, they all have one quality in common and that is their ability to sustain plant growth and their fertility is measured by their capability in that direction. This capability depends on

- (1) The Physical construction.
- (2) The content of plant food.

1. *Physical construction.*—The physical differences between sands and clays mainly depend on the differences in the sizes of their component particles. In sandy soils there is a larger proportion of the bigger particles while in clayey soils there is a bigger proportion of small particles. Owing to the differences in size of soil particles other differences arise. A sphere of one inch radius is equal in volume to eight spheres of half inch radius but the surface area of the eight small spheres is more than double that of the one larger sphere. In the coarser-particled sandy soil there is a smaller surface area and a greater amount of space between the particles. Owing to the smaller surface area to which film moisture adheres, the total amount of moisture retained is less than in a finer-particle soil. In the finer clayey soils the surface area is greater with a consequent greater capability of retaining film moisture which the plant requires. Owing to the smaller size of the particles there is not the same amount of pore space between the particles and therefore not the same ease for water to percolate through nor for air to enter in and aerate it. In every soil, however, there is a particular balance between the water and air in the soil space which is best for all-round efficiency. In that state the soil is said to be at its

optimum water-content. Any excess of water above or deficiency below the optimum water-content means less growth or a less healthy plant. Roughly half of the soil space should be occupied by moisture and half by air and drainage should aim at maintaining the moisture-content at its optimum.

Undisturbed soils tend to become more closely packed under the influence of beating rain, trampling feet and the attraction of moist particles for each other. Under natural conditions the soil is usually covered with growth which prevents rain beating directly on it and growing roots. The biological soil population and decomposing organic matter tend to keep it more or less open. Artificially this is done by cultivation.

In the mechanical analysis on soils by process of sedimentation, the coarse, medium and fine particles in a soil may be separated and five main fractions are generally recognized. Coarse sand, fine sand, silt, fine silt and clay, and the method of soil classification used at Tocklai is based on these fractions. Although at first confusing, the method is simple and direct. Each soil fraction is denoted by a number.

Coarse sand	denoted by	1.
Fine sand	„	2.
Silt	„	3.
Fine silt	„	4.
Clay	„	5.

Then the fraction which occurs in the greatest proportion is mentioned first followed by the other fractions in order of magnitude. The method is shown in the following table :

		Soil A.	Soil B.	Soil C.	Soil D.	Soil E.	Soil F.
—		Eastern Dooars, coarse sand	Dooars, silt	Assam, yellow clay	South Sylhet, teela	Darjeeling	Tezpur Red Bank
		Per cent	Per cent	Per cent	Per cent	Per cent	Per cent
Coarse sand	...	76	9	...	30	25	23
Fine sand	...	14	35	16	24	5	22
Silt	...	2	17	24	15	16	16
Fine silt	...	5	22	28	7	11	17
Clay	...	1	11	25	18	24	15
Soil type	...	1,2,4,3,5	2,4,3,5,1	4,5,3,2,1	1,2,5,3,4	1,5,4,3,2	1,2,4,3,5

Soil A is a sand from the Eastern Dooars, the lightest known in the tea districts, of the type 1, 2, 4, 3, 5. It was laid down by fast running water which carried off practically all the finer particles. The predominance of the coarse sand is such that the influence of the other fractions is quite overshadowed.

Soil B of the 2, 4, 3, 5, 1 type is a typical silt from the Daina Toorsa District in the Dooars. It was laid down from water flowing at a medium pace which has dropped most of the coarse sand. The coarse sand then the (1-fraction) takes the last place in the chain and the finer fractions increase in importance. Such a soil as this one containing much fine sand

and silt is liable to tight packing, lacking as it does the opening influence which would follow from a good percentage of coarse sand.

Soil C of the type 4, 5, 3, 2, 1 is a yellow sticky clay from Assam, difficult to work and almost impervious. This soil was laid down from water which was almost stagnant. A notable feature is the entire absence of coarse sand which is naturally never deposited in large quantities with clay. The yellow clays are usually much stickier than the red ones which are often much older and have had the sticky particles removed by the ages of washing.

E and F are given as examples of soils formed *in situ*. Soil E is taken from a South Sylhet teela and is of the type 1, 2, 5, 3, 4 which is characteristic of this area. Soil F is from Darjeeling and is of the type 1, 5, 3, 4, 2. The outstanding feature is that both clay and sand are major constituents. Now since coarse sand and clay cannot be deposited as major fractions from running water it follows that the clay has been formed by weathering.

An examination of the sub-soil of the Sylhet teelas yields interesting information. The core of the hill is made of sandstone which has not weathered so much as the top soil and is hence much poorer in clay. The sub-soil immediately below the soil on the other hand, is usually much heavier than the top soil, for with a soil of the 1 to 5 type there are not many fine particles to stop the washing down of the clay during each rain. During the dry season this clayband, which has been washed down, hardens and after many years the ironstone pan common in South Sylhet makes its appearance.

Soil F is of the type 1, 2, 4, 3, 5 from the Tezpur Red Bank. Although it is denoted by the same type chain as Soil A it is essentially different in texture. These two cases illustrate the weakness of this method of classification. The Tezpur soil although not so old as the Sylhet example has still had time to weather and to thereby increase the clay percentage to fifteen per cent whereas a similar soil laid down recently would only contain four to eight per cent of this fraction.

(To be continued)

DISTRICT NOTES

Shevaroy's

Dated, June 29, 1925.

Social.—Station Whist Drives are becoming very popular up here. We have had two this month, both at the Victoria Rooms, and it is suggested that there should be one every month. Mr. H. Whittle, who has succeeded Mr. A. R. D'Silva as Honorary Secretary of the Victoria Rooms, ably supported by Mrs. Whittle spares no pains to make these Drives a success. 'Pocohantas' was duly staged on the 5th and 6th instants, with the kind permission of Messrs. Bevan & Co., Ltd., and as a full account of it has appeared in the *Madras Mail* I need only add that the measure of success attained by the energy of Mr. and Mrs. G. D'Silva in getting up the show, may be accurately judged by the fact that taking part in the performance gave the actors quite as much pleasure as it apparently did to the audience. The latter on the first night however was cold and critical and in that mood scarcely obtained the fun

out of it that was derived on the second night when the encores were frequent and insistent. On the 26th the same organizers provided us with a very enjoyable concert followed by refreshments and a dance.

S.P.A.—There was an informal gathering of members on the 1st instant, to meet Mr. Narasimha Raju, M.L.C., who visited these hills for a few days and I think he was agreeably surprised to find that his preconceived ideas of conditions on the plantations were not correct. He sympathized with us in our difficulties and expressed the hope that others would visit the planting districts, see things for themselves, and obtain information at first hand. Some of the outlying estates were visited and the only suggestion he had for improving the condition of the cooly was that we should combine to reduce our advances, which are certainly not high.

Coffee Pests.—Borer has been rather more in evidence this year than usual but the exceptionally wet weather we have had ought to check it. Green bug promised to start with a fine flourish early in the month but after the early burst of the monsoon the grey mould has appeared on some estates and the bug has been almost wiped out in parts.

Weather—The monsoon broke here in the last week of May which is unusually early for these hills. Our average rainfall for June is from $3\frac{1}{2}$ to 4 inches but we have had over 10 inches on most estates this month already. A rather amusing 'forecast' is to be found in the *Madras Mail* of June 12, 1925, on page 8. It is headed 'The South West Monsoon—another Forecast' and contains about 200 words. The so-called 'Forecast' is a fairly full description of the weather we have had from the time the monsoon set in, up to the date of the article and the only approach to a 'forecast' are the words, 'This current is this morning showing signs of reviving in South India.' At present we are having good rain almost every evening and we are told by the Meteorological Reporter that 'Rain is likely to be confined to the West Coast with a few showers elsewhere.' I think many of us would like to know what use these reports and 'forecasts' serve. Perhaps the planters on the West Coast may benefit it if they take precautions against being drowned in their beds when they read that 'Rain is likely to be confined to the West Coast', but what assistance such reports are to any one else is not evident.

Scientific.—I think it is generally agreed by coffee planters, who have applied burnt lime to their estates, that the application is followed by a severe attack of leaf-disease. Lime being caustic, it follows that the reason for the attack is possibly due to the temporary destruction of all bacteria, good and bad, and the burning of the tips of the feeding rootlets, the combined result being that the trees are temporarily prevented from obtaining the nourishment they need to resist the disease or to continue growth sufficiently fast to keep ahead of it. Of course after the deleterious effects have disappeared, the beneficial bacteria in the soil multiply very fast and the soil is in a better condition than before, but it seems to me that unless one is prepared to suffer considerable loss of crop for about two years, the application of lime to coffee, in the form that it is obtainable in India, is not a paying proposition and that it would be better to apply it in the form of Basic Bone Super or some such manure. I think Mr. Anstead once said that it is only after the lime has reverted to its original form, viz. calcium carbonate, that the soil improves. This being so, it has been suggested that as chalk in large quantities is not obtainable in this

country, and limestone contains a large proportion of magnesium chloride, the above mentioned deleterious effects could be avoided and lime obtained in its calcium carbonate form by the application of unburnt shells crushed to the fineness of steamed bone meal. This question was referred to our Scientific Department, and in the absence on leave of Messrs. Anstead and Munro, I am indebted to Mr. G. R. Hilson for the following reply which may interest all planters. 'I have to state that the reasons suggested for the immediate deleterious effect of the application of burnt lime to coffee are possibly correct, but I know of no definite research work which has been done on this point which will warrant my making any definite statement to that effect. I think the proposal to apply powdered unburnt shells is well worth trying.'

Can any planter who may have tried powdered unburnt shells give us the benefit of his experience? A point of importance which I forgot to raise is, how long will it take before powdered unburnt shells will decay in the soil and take effect? One advantage of applying lime in this form is that it could be put down at any time of the year.

E. H. B.

Coorg Paperchases

The Opening Meet of the Coorg Monsoon Paperchases was held at Somwarpet on Monday, June 29.

Mr. A. M. Webb of Alikati was responsible for the course and is to be greatly congratulated on the successful result of his efforts. A novel feature was introduced making the ride resemble a hunt as far as possible. The paper trail represented the line taking by hounds; in certain places 'the pack in full cry' crashed through lantana thicket and scrambled up precipitous banks, leaving the 'hunt' to find the best way round. This necessitated frequent checks which kept riders well together.

But for four made-up jumps the obstacles were all natural, providing plenty of variety. The 'hounds found' on the bané just beyond Somwarpet village and, leading over a solid but not overformidable jump, crossed gently undulating down country and occasional ploughed land; the stake fences and earth bunds providing jumps and scrambles. At one point the 'fox' obligingly used the bridge over a stream swollen by recent rain but a short distance further on girth-high water tested the courage of the Coorg tote hacks. They all nobly responded and followed the 'hounds' hard up the further bané, where an open-ditch-and-fence was successfully crossed. A spill at the gap jump beyond caused a 'check' and a brief hunt after live quarry, the riderless horse. Off once more the 'hunt' swept over a low jump with ditch beyond, the hidden treachery of which was seen by few until safely cleared. Most excellent going on a 'screaming scent' followed until finally the 'hounds' ran down across the paddy fields beneath the Travellers' Bungalow bané. A scrambling splash through the stream below and then a race up-hill to be 'first in at the death' ended a most interesting and enjoyable run.

The field, a small one, consisted of Messrs. Nicolls, Sprott, Iron, Mahon, Webb, Humphreys, Potter and Davis. Among the spectators were Mrs. Taske, the Rev., Mrs. and Miss Wright, Mrs. and Miss Gerrard,

Major Gerrard, Mr. and Mrs. Darrington, Mr. and Mrs. Pearse, Mr. and Mrs. Magniac, Mrs. Nicolls, Mr. and Mrs. Morgan, Miss Mahon, and Mr. McLean.

Lunch at the Belur Club followed by Bridge and Russian Fleas occupied the afternoon, tea bringing a good day to an enjoyable end.

NOTICE

U.P.A.S.I. SPORTS CLUB

District Representatives

Only two districts, Central and South Travancore, have so far appointed a Sports Club Representative for the current year. Will Honorary Secretaries of the other districts please take steps to do so, sending name and address to me?

I would mention, that by appointing a representative, Honorary Secretaries are saved being worried with Sports Club affairs.

WOODBRIAR ESTATE,

DEVARSHOLA P.O.

Dated July 3, 1925.

(Sd.) G. W. FULCHER,

Honorary Secretary.

British Supremacy in Rubber Production

In 1924, as compared with 1922, the demand for, and production of, rubber had increased by respectively 75,000 and 21,000 tons. British production, however showed a decrease during this period of 50,500 tons; and from 73 to 50 per cent of the world's total supply. The percentage of Dutch to world production, on the other hand, increased from 15 to 37 per cent. It is hoped that when embargoes on production under the Restriction Scheme are lifted, British interests will be able to show again almost as big a margin of supremacy as they commanded in pre-restriction days.

A Rubber Rebound

It is said, reports 'Truth,' that a powerful syndicate unconnected with the rubber industry has made a big haul during the past few months. Commencing its operations last autumn, this syndicate is said to have entered into large forward contracts, principally with the Dutch. The latter felt they were uncommonly clever when they were producing 'all out', and selling forward for 1925 at 1s. 4d. and 1s. 6d. a lb., but our Dutch friends now find that they have been outwitted and are lamenting that they allowed an outside speculative syndicate to run away with the big additional profits they might have made. Many of these forward contracts, it appears, were effected by the syndicate through New York, and were thus given the appearance of genuine trade buying. There is, perhaps, some satisfaction to be found in the fact that the Dutch were the largest sellers, but some of the contracts appear to have been made by certain London companies, who were only lukewarm supporters of the Stevenson Scheme. It seems, therefore, that, after all, those who played the game and loyally supported the restriction measures will come out best in the end, and this will be clearly seen when the average sale prices obtained by the London companies for 1925 are disclosed.

EXPORTS OF COFFEE, RUBBER AND TEA FROM SOUTH INDIAN PORTS DURING MAY, 1925

From	To ports in India	Ceylon	United Kingdom	Europe (excluding United Kingdom)	Asia (excluding India and Ceylon)	Africa	America	Australia
<i>Tea—</i>								
Madras	1,232	...	1,76,415	10,48,750	...	...	...	...
Calicut	29,039	59,224	11,18,925	...	1,200	200	10,800	...
Cochin	21,729	61,948	7,74,449	96	...	...	...	...
Tellicherry	...	...	55,442	...	...	...	...	...
Tuticorin	...	1,88,861	11,14,162	...	...	...	...	...
Total	52,000	3,10,033	32,41,393	10,48,846	1,200	200	10,800	...
Previously	31,782	3,17,919	24,90,967	1,368	869	...	6,360	...
Total lbs. since 1-4-25.	83,782	6,27,952	57,32,360	10,50,214	2,069	200	17,160	...
<i>Coffee—</i>								
Madras	623	...	...	...	3	...	...	...
Calicut	...	...	2,830	662	8	...	...	...
Mangalore	4,649	...	4,915	12,658	5,943	...	...	462
Tellicherry	20	...	1,595	2,297	...	...	...	...
Bombay	...	...	1,217	...	1,292	...	...	...
Total	5,292	...	10,557	15,617	7,246	...	...	462
Previously	8,933	34	98,556	66,664	19,927	...	503	6,770
Total cwt. since 1-1-25.	14,225	34	1,09,113	82,281	27,173	...	503	7,232
<i>Rubber—</i>								
Calicut	...	61,632	50,841	...	...	...	...	...
Cochin	...	2,34,217	2,29,143	2,310	...	10,244	98,690	...
Mangalore	...	13,300	...	...	...	...	...	...
Tellicherry	...	...	20,550	...	...	...	...	...
Tuticorin	...	1,27,489	...	...	...	...	...	...
Alleppey	...	16,092	...	7,989	...	...	...	...
Total	...	4,52,730	3,00,534	10,299	...	10,244	98,690	...
Previously	1,684	16,51,009	17,55,489	66,114	753	2,000	7,44,591	...
Total lbs. since 1-1-25.	1,684	21,03,739	20,56,023	76,413	753	12,244	8,43,281	...

COMMERCIAL AND METEOROLOGICAL

I. The Rupee Exchange for the week ending July 4, 1925

Bank Selling Demand Draft on London

29th	30th	1st	2nd	3rd	4th
18 1/16d.	18 1/16d.	18 1/16d.	Holiday	18 1/16d.	18 1/32d

II. Summary of latest Market Reports and Prices to hand

(a) Highest London Prices—

Highest prices realized on the
London Market

Average prices obtained for tea

Mark	Pkgs.	Price	District	Week ending June 6	January 1 to June 6, 1925	January 1 to June 6, 1924
(1) TEA (WEEK ENDING JUNE 6)		s. d.		s. d.	s. d.	s. d.
<i>South India</i>						
Prospect ...	238	1 11½	N. India.	1 4·57	1 5·73	1 5·50
Kan. Letchmi ...	251	1 11½	S. India.	1 7·38	1 6·52	1 5·97
Kan. Periaavurri ...	217	1 10½	Ceylon...	1 7·81	1 8·25	1 7·94
Kan. Kalaar ...	105	1 10½	Java ...	11 0·84	1 0·99	1 2·35
Kan. Madupatty ...	76	1 10½	Sumatra.	1 3·70	1 4·34	1 4·04
<i>Ceylon</i>						
Rookwood ...	73	2 3½	Nyassa- land.	1 1·48	1 2·11	1 3·88
Eakdale ...	114	2 3				
(2) COFFEE (WEEK ENDING JUNE 20)						
Pollibetta (Coorg) ...	66	144/2				
Malloor (Nilgiri) ...	64	144/2				
Total				1 5·40	1 6·03	1 5·89

(b) Precis of weekly reports on London Markets—

(1) *Tea*.—Though Common Teas declined a little, the market for tippy broken and good liquoring fannings continued firm throughout the week ending June 13. The feature of the market has been the very attractive averages secured for fine South Indian Teas.

(2) *Rubber*.—For the first time since January the quantity landed during the week ending June 20 exceeded the quantity delivered and London stocks have decreased by 175 tons to 5,631 tons. The market has eased off, and closed at just under 3 shillings for spot.

(3) *Coffee*.—Most of the East Indian Coffee during the week ending June 20 was poor in quality and much of it had to be bought in. The African Coffee offered was also of indifferent quality and attracted little attention, but on the other hand one lot of Bold Costa Ricas realized the handsome price of 194 shillings.

(c) Precis of Local reports on planting produce—

(1) Colombo Brokers' Association reported on July 1 that 6,584 pounds of 'Monkwood' Tea were sold at Rs. 140 and that best quality ribbed smoked sheet rubber was fetching Rs. 1.91.

(2) Mysore Chamber of Commerce under date, July 6 reports Cardamoms selling at Rs. 120 per 25 lbs., and Peachberry Parchment Coffee at Rs. 23 to Rs. 24 per 26½ lbs.

III. Weekly Rainfall Statement

From April 1, 1925, up to and including Saturday, July 4, 1925

Stations are arranged in order approximately south to north and those not in planting districts are shown in small capitals.

Stations	W.	P.	Total	Stations	W.	P.	Total
1. Kalthuritty.	3.82	27.19	31.01	15. Nilambur ...	5.69	19.18	24.87
2. Tenmalai...	3.21	30.39	33.60	16. Naduvattam	N.R.	25.39	N.R.
3. Munda-				17. Coonoor ...	N.R.	8.80	N.R.
kayam ...	7.01	66.48	73.49	18. Kotagiri ...	N.R.	N.R.	N.R.
4. Peermade...	8.51	48.01	56.52	19. Ootacamund	0.37	16.67	17.04
5. Vandiperi-				20. Yercaud ...	0.00	16.06	16.06
yar ...	N.R.	23.07	N.R.	21. Devala ...	N.R.	35.03	N.R.
6. Kalaar ...	10.55	57.95	68.50	22. Gudalur ...	6.22	22.73	28.95
7. Chittuvurrai	.63	12.98	13.61	23. CALICUT ...	8.10	39.26	47.36
8. BODINAKA-				24. Kuttiyadi ...	9.93	52.48	62.41
NUR ...	0.26	3.65	3.91	25. Vayittiri ...	11.47	45.25	56.72
9. COCHIN ...	7.49	42.46	49.95	26. Manantodi...	9.33	25.41	34.74
10. Mooply ...	6.04	35.11	41.15	27. Sidapur ...	1.87	21.42	23.29
11. Pachaimalai	5.90	40.49	46.39	28. Somwarpett	N.R.	19.32	N.R.
12. Mudis ...	N.R.	57.36	N.R.	29. Ballupete ...	4.55	19.46	24.01
13. POLLACHIE.	1.38	4.74	6.12	30. MANGALORE	2.85	49.13	51.98
14. Manjeri ...	7.78	28.88	36.66	31. MADRAS ...	0.05	4.27	4.32

W = During the week.

P = Previously.

N.R. = No return.

The Planters' Chronicle

Recognized as the Official Organ of the U. P. A. S. I. (Incorporated)

Managing Editor's Postal Address: POST BOX 155, MADRAS

Do. do. Registered Telegraphic Address: 'UPASI,' Madras

VOL. XX, No. 29] SAT., JULY 18, 1925 [PRICE, AS. 8

CONTENTS

	PAGE		PAGE
Editorial Notes ...	487	Central Travancore Planters' Association ...	502
Liberia and the Future of Rubber ...	489	U.P.A.S.I. Sports Club, Bangalore Conference ...	503
General Scientific Officer's Report on Tour in Assam— (continued) ...	490	The United Planters' Association of South India 32nd Ordinary General Meeting ...	504
Good Prospects for Coffee ..	500	Commercial and Meteorological.	505

EDITORIAL NOTES

The value of the coffee exported from Kenya has considerably more than doubled during the Sexennium ending December, 1924; and for the eleven months, January–November inclusive, reached the unprecedentedly high figure of £525,656. *Prosperity of Kenya Coffee*

Paradoxically enough however the percentage of coffee to total exports has shown a steady decrease—it was only 26 per cent for the first eleven months of last year whereas it was much as 51 per cent in the calendar year 1921. This anomaly is chiefly due to increased production of cotton, groundnuts, and maize; and the Coffee Planters' Union is considerably perturbed because only some £2,000 has been devoted to their industry out of the £100,000 voted by Government towards agricultural development during the past five years. Some of the Government grant, it may be interesting to note, has been expended on the deputation of an officer to Italy to investigate the possibility of importing the lady bird to the colony to aid in the extermination of pests.

A dame of Spokane, U. S. A., is demanding a divorce on the grounds that her husband milks their goat into his cup of coffee direct. If there had been coffee in the days of Adam and Eve, the wife would probably have thought any such action on the part of her husband an accomplishment worthy of praise!

Sports are *personae gratae* all the world over. The human variety, however, seldom if ever brings material wealth to his host. His value lies in himself. With the botanical variety, matters are sometimes reversed; and Brazil is enthused over the discovery of a new variety of coffee a 'sport' by 'mutation' from the ordinary Bourbon type. Its differentiating characteristic is that the fruit has four to ten seeds against the Bourbon's two. An expert—Professor de Silveira—opines this 'sport' to be of considerable commercial importance, in that it will yield a considerably greater quantity of equally good coffee per unit of surface as compared with the regular Bourbon tree.

Those correspondents who so kindly furnish rainfall returns each week are kindly requested to check the figure shown in the 'Previously' column on page 506. These figures indicate the rainfall experienced from April 1 to July 4 inclusive; and, though they have been compiled as carefully as possible from the available records, it is just possible that some errors may have crept in. Correspondents are also requested to see that each week's returns are posted so as to reach this office at latest on the following Thursday morning; as unless they do so the statement appearing in Saturday's issue of *The Planters' Chronicle* must of necessity be incomplete.

The March issue of *The Tea and Coffee Trade Journal* gives the following figures as the increases and decreases for 1924 as compared with 1923 in the exports of tea to America from India and the Straits:—

		Increases.			Decreases.
Ceylon	...	1,155,157	Java	...	2,923,800
India	...	320,140	Sumatra	...	410,400

The figures though eminently satisfactory from the Ceylon, can scarcely be called comforting from the Indian point of view. They do not, however, justify an assumption that India's expenditure on advertising tea in America is futile; for it may well be that the advertising campaign upheld India's position in the American market, where consumption is decreasing, at the expense of Java and Sumatra and possibly of China and Japan.

The above figures, it may be noted, show that America took 1,858,903 lbs. less tea in 1924 than in 1923 from the countries mentioned above.

Mr. Harvey S. Firestone asserts according to *The Malayan Tin and Rubber Journal* that the British rubber restriction is again threatening progress and development of highway transportation and increasing the price of rubber tyres to American motor owners.

It is difficult, of course, says Mr. Firestone, to predict what the rubber restriction will cost American car owners in 1925, but it will not be less than \$100,000,000, and it is more likely to be \$300,000,000 or \$400,000,000.

These figures are staggering, but every ten cent advance in the cost of crude rubber means an assessment of about \$75,000,000 against America.

Mr. Firestone with his friends, Henry Ford and Thomas A. Edison, is, as our readers know 'going all out' to place Americans in a position to produce for themselves all the rubber they require.

LIBERIA AND THE FUTURE OF RUBBER

The American rubber manufacturers are apparently doubtful whether the 'Almighty Dollar' will succeed in living up to its name when employed in its millions, as an immediate stimulation of rubber production in the Dutch colonies in the East. The present remunerative price of rubber has probably already given Dutch producers a surplus of stimulation over and above the maximum to which they can respond; and after all it is impossible to produce a quart from a pint pot. If quarts are to be drawn, the pint pot must be duplicated; and that process in the case under consideration would occupy at least five years.

The manufacturers seem equally sceptical as to whether they can appreciably alter the situation in their favour by reducing consumption not only during the preautumn seasonal falling off in tyre manufacturing, but also more permanently through reclaiming old rubber and suspending the manufacture of rubber non-essentials such as foot-wear, mechanical appliances and toys.

So 'Liberia' is the slogan which Mr. Harvey S. Firestone and his followers have therefore decided to adopt. Formerly, rubber and mining concessionaires found themselves stultified by lack of transport and the chronically unsettled state of the republic; but in more recent years American enterprise has done much to open up the country and place its government on a firm basis. The last available statistics show that some 1,200 acres of rubber are in bearing and it is presumably these plots which the American manufacturers have acquired.

Liberia was founded by the American Colonization Society in 1820, and declared an independent Negro Republic in 1847. Its population is nearly two millions and its area is 48,000 square miles. The principal exports are Palm oil, Cocoa, Coffee, Ivory and Kala nuts; and if rubber does not eventually take a prominent place in the list, Mr. Firestone will presumably want to know the reason why.

The Liberian venture does not, of course, promise any more speedy increase in rubber production than the financial stimulus which is to be applied to the Netherland colonies; but (provided of course the possibilities of Liberia as a rubber-producing country have been thoroughly probed) it should be less speculative financially; for the Liberians unlike the Dutch can presumably only impose such taxes on the agricultural products of their country as are approved by the Financial Adviser whom the U. S. A. imports.

Meanwhile would consumption goes gaily on and reached 48,000 tons in May (the equivalent of 576,000 tons per annum) when the production under the 65 per cent restriction rate was only 40,000 tons.

There are some indications however that the second half of the year will see a decrease in prices and an increase in stocks. For there should be a lull in manufacturing activity now that the summer demand for the new baloon tyre has been met, and a simultaneous increase of supply owing to the 10 per cent release on 1st May and the further quarterly releases which are still to come.

REPORT ON TOUR IN ASSAM

BY

D. G. MUNRO, B. Sc.

THE

GENERAL SCIENTIFIC OFFICER, U.P.A.S.I.—(continued)

The Interpretation of a Mechanical Analysis

The interpretation of a soil analysis can only be made in the light of practical experience. The most that can be said is that a soil giving a certain analysis will respond to the same treatment as a soil in the same area giving a similar analysis. For instance, the same treatment will probably get the same response from soils in the Dooars Red Bank when the analysis are similar, but it would be unsafe to argue that the soils in Assam similarly classified would act in the same manner.

The application of manures can only be scientifically made after the mechanical condition of the soil is known. Two hypothetical soils, both rich in plant food, are shown below :—

			Soil A	Soil B
Coarse sand	...	...	45 per cent	5 per cent
Fine sand	...	...	25 "	10 "
Silt	...	...	15 "	15 "
Fine silt	...	...	10 "	30 "
Clay	...	...	5 "	35 "
Loss on ignition	...	...	4 "	9 "
Nitrogen	...	...	0.13 "	0.22 "
Organic matter (Grandeau)	...	...	1.4 "	3.0 "
Available potash	...	...	0.010 "	0.018 "

Soil A is a light sand which will allow the plant roots to explore a great area with ease, whilst soil B is a clay which restricts free root development. On this account both soils are accounted rich, although soil B contains about twice the amount of plant food as soil A. In addition, it should be added that owing to freer movement of moisture in the soil the plant food from a sand is generally more available than that from a clay. For tea, soil A is preferable to soil B.

Having decided by the help of the mechanical and chemical analysis that a soil needs a certain manure, the form in which the manure may be best added can then be decided. For example, nitrogen may be added as cattle manure, oil cake, nitrolim, sulphate of ammonia, nitrate of soda, nitrate of potash and in the form of many other manures of a mixed nature. Now experience has shown that certain manures act better than others on certain types of soil and in suggesting a manuring scheme the mechanical analysis of a soil is essential.

Thus, if we decide that a soil of physical texture resembling B requires nitrogen, it would be inadvisable to give it as oil cake, for the rate of decomposition by which nitrogen in this manure becomes available is so slow in clay soils that its application is not economically sound. With such a heavy soil the nitrogen would best be added as sulphate of ammonia. Whilst oil cake does well on a light sand like that shown by soil A, nitrolim does not do well, or at any rate gets but a poor response. At Bhorbetta where the soil is of the type 2, 1, 3, 4, 5 nitrolim gave a crop increase of 4 per cent whilst an equivalent quantity of nitrogen added as fish guano gave an increase of 14 per cent. It is generally sounder to add manures in an organic form to a sandy soil.

In practice, the mechanical is of more use than the chemical analysis to the chemist, for experience has shown that so far as the tea crop is concerned, practically every soil responds to nitrogen, whatever the chemical analysis may show. The important point is to know in which form to add the nitrogen, and this can only be deduced from the mechanical analysis.

When a soil is formed *in situ* weathering, then there is a tendency for the clay to increase. The two types 1, 2, 3, 4, 5 and 1, 2, 3, 5, 4—represent a sedimentary soil such as is met near the Brahmaputra and a soil from a south Sylhet teela which has gradually formed from the sandstone rock which constitutes the core of the teela. Similar types are 1, 2, 5, 3, 4 and 1, 5, 2, 4, 3 where the clay is seen to be gradually increasing in importance. It is contrary to experience or expectation to have coarse sand and clay deposited together in anything approaching equal quantities by running water. If these two fractions do tend to become equal it is due to weathering.

A glance at some analyses of south Indian estates is interesting in this connection.

Anamallais—

A	...	1, 2, 4, 3, 5	2, 1, 4, 3, 5	1, 2, 4, 3, 5
		1, 2, 4, 5, 3		
B	...	1, 4, 2, 3, 5	4, 1, 3, 2, 5	4, 1, 3, 5, 2
C	...	2, 1, 4, 3, 5	2, 1, 4, 3, 5	
D	...	2, 1, 3, 4, 5		
E	...	1, 2, 4, 3, 5	2, 1, 4, 3, 5	2, 1, 4, 3, 5

Kanan Devan—

A (Red)	...	1, 4, 2, 3, 5		
A (Black)	...	1, 4, 3, 2, 5		
B	...	1, 2, 3, 4, 5	1, 2, 3, 4, 5	1, 2, 3, 4, 5
C 1	...	4, 1, 3, 2, 5	1, 2, 3, 4, 5	1, 4, 3, 2, 5
		4, 1, 3, 2, 5		
C 2	...	4, 3, 1, 2, 5	1, 4, 2, 3, 5	1, 2, 4, 3, 5
		1, 4, 3, 2, 5		

Central Travancore—

A	...	2, 1, 4, 3, 5	5, 1, 4, 2, 3
B	...	2, 1, 4, 3, 5	1, 4, 2, 3, 5
C	...	2, 1, 3, 4, 5	

D	...	2, 1, 3, 4, 5	2, 1, 3, 4, 5	
E	...	1, 4, 5, 2, 3	1, 4, 2, 5, 3	1, 4, 2, 3, 5
F	...	2, 1, 3, 4, 5	1, 2, 3, 4, 5	
Tea Experiment Station	...	1, 2, 3, 4, 5		
<i>South Travancore—</i>				
A	...	1, 4, 2, 5, 3 1, 2, 4, 3, 5	1, 2, 4, 5, 3	1, 2, 4, 5, 3
B	...	1, 2, 4, 3, 5		
C	...	1, 2, 4, 5, 3	4, 2, 5, 1, 3	
D	...	1, 3, 5, 2, 4		
E	...	1, 2, 4, 3, 5	1, 5, 4, 2, 3	1, 2, 4, 3, 5
<i>Wynaad—</i>				
A	...	4, 1, 3, 2, 5 1, 2, 4, 5, 3	4, 3, 1, 2, 5 1, 2, 4, 3, 5	4, 2, 1, 3, 5
B	...	5, 1, 4, 2, 3 5, 1, 4, 2, 3	5, 1, 4, 2, 3 5, 1, 4, 2, 3	5, 1, 4, 2, 3 5, 1, 2, 4, 3
C	...	1, 3, 4, 2, 5 3, 4, 5, 2, 1	4, 3, 1, 2, 5 3, 1, 4, 2, 5	3, 1, 2, 4, 5
D	...	1, 2, 4, 5, 3		
<i>Nilgiris—</i>				
A	...	5, 2, 1, 4, 3	1, 2, 5, 4, 3	5, 1, 3, 2, 4
B	...	5, 1, 2, 4, 3 5, 4, 2, 1, 3	5, 4, 2, 1, 3 5, 1, 2, 4, 3	5, 4, 1, 2, 3 4, 5, 1, 2, 3
C	...	2, 3, 1, 4, 5	1, 5, 4, 2, 3	

It must be remembered, however, that top soils are subject not only to weathering, but also to wash and any clay gained by one process may be removed by the other. It is therefore unsafe at present to be dogmatic on the subject before a detailed survey of each district has been made.

In recent years more and more attention is being paid to the actual composition of the soil solution. The soil retains by absorption, and surface attraction, some 10 to 20 per cent of its weight of water, distributed as films over its particles. The water dissolves some of the soil constituents forming a solution which is of obvious importance as the medium through which plants derive their food.

Andrews in his 'Factors affecting the Control of the Tea Mosquito Bug' brings out clearly the fact that the tea bush may vary from time to time in the degree to which it is attacked during the season although situated in the same soil the whole time and quite apart from any considerations such as decrease or increase in the number of insects and points out the necessity for more detailed investigations into the changes occurring in soils such as is afforded by a study of the behaviour of the soil solution. He also shows that by direct application of potash to the feeding roots of the tea bush sufficient change is induced in the plant sap as to make it unsuitable as food for the mosquito bug.

Owing to the presence in soils of colloidal clay and colloidal organic matter the extraction of soil solution is a matter of great difficulty. Burd and Martin carried out a comparison of the composition of the soil water-

extracts with that of soil solution displaced from the soil at different water-contents. From this comparison it appears probable

(1) that the concentration of certain ions notably chlorine nitrate and calcium in the soil solution *in situ* varies inversely as the moisture-content, that is to say, the whole of the chlorine and nitrate exists in the soil in a state of solution together with an equivalent amount of calcium.

(2) that the concentration of phosphate in the soil solution *in situ* is constant, for varying moisture-contents of the soil representing a saturation value. This value, however, varies widely from soil to soil.

(3) that the concentration of potassium in a soil solution *in situ* is higher in a soil with a low moisture-content than in the same soil with a higher moisture-content but not proportionately so.

Whether these probabilities hold good for tea soils is not at present known but it is more than possible that on variations such as these affecting the bush that attacks of pests and diseases depend.

The nitrate-content of the soil at any time is the resultant of two opposing sets of factors; one being concerned with the production and the other with the removal of nitrates.

From investigations in other countries into the problem of seasonal fluctuations of nitrate-content it is concluded that these fluctuations are conditioned solely by seasonal changes in the environmental factors involved such as soil, temperature, rainfall, etc., and that there is no *inherent* periodicity in these processes. The amount and movement of nitrates in the soil has been receiving attention at Tocklai.

The variation in nitrate-accumulation from January to August, 1924, at different depths at Bhorbetta is shown below:—

Nitrate formation in parts per million of soil

Month		Fallow			Cropped			Rainfall, 1924
		6-12"	24-30"	36-42"	6-12"	24-30"	36-42"	
January	...	5	7	7	0.4	0.1	0.2	0.93
February	...	6	6	7	0.3	0.3	0.2	1.48
March	...	7	7	8	1.1	0.3	0.7	0.91
April	...	16	7	7	5.6	0.1	0.3	6.47
May	...	14	8	9	3.0	0.3	0.3	6.45
June	...	13	9	8	2.5	0.4	0.3	6.36
July	...{	17 5	8 17	8 10	8.5 0.7	0.5 0.9	0.3 0.7	} 18.10
August	...	4	15	14	1.0	0.2	0.7	

Nitrate-accumulation varies considerably. It increases considerably when good rains occur in April and is highest in both cropped and uncropped in the beginning of July. With the heavy rains of July leaching occurred and the movement of nitrates is downwards. Thus whereas at 6-12" depth at the first half of July nitrate-accumulation amounted to seventeen parts per million and at 24-30" depth it was only eight parts per million in the second half of July, after the heavy rains the position is reversed and at 6-12" depth the accumulation of nitrates is five parts per million at 24-30" it rose to seventeen parts.

In addition to actual losses of nitrates from the soil such as those due to absorption by plants to drainage to denitrifying organisms and other processes which give rise to gaseous nitrogen, various biological processes result in the conversion of soluble nitrogen in the soil to insoluble forms not immediately available for plant growth. This conversion occurs when organic matter of low nitrogen-content is added to the soil as illustrated by the effect of straw. This also possibly happens when large quantities of low nitrogen-content weeds, etc., are dug in. It must be emphasized that processes of this type do not deplete the soil as a whole of nitrogen but only of available nitrogen and they figure in the nitrogen balance sheet as a transfer to capital account rather than an actual expenditure. The higher the nitrogen-content of the organic material dug in therefore the less would it be inclined to take up the nitrates already in the soil.

Nitrate determinations of soils at Bhorbetta show that the nitrates in fallow plots kept clean weeded is very much greater than nitrates in plots growing tea and in these plots it was found that the greatest amounts of nitrates were found in the middle of the rows while underneath the bushes very little nitrates were found. This is in accordance with previous observations that growing plants seem to have the effect of depressing nitrate formation but evidence is advanced by American investigators that the organic matter derived from the roots of the growing plants is often of low organic-content and thus favourable to the action of nitrate consuming soil organisms and that the variation in the depressive effect of different plants on nitrate accumulation may be correlated with the variations in the nitrogen-content of the organic matter derived from their roots. In other words the effect of the growing plant is not one of inhibition of nitrate production but one of stimulation of nitrate consumption by soil organisms.

In the experimental cultivation plots at Bhorbetta, it was found that the plots which are kept clean weeded usually show a nitrate accumulation of about double that on the plots on which weeds and jungle are allowed to grow. In June the values were about 20 and 10 and in August 9 and 5 respectively.

Cultivation experiments.—The cultivation experiments carried on at Bhorbetta show considerable light on the differences in yield obtained by different methods of cultivation. The figures for 1922 and 1923 are shown. Normal cultivation is taken as deep 9" digging in December to January and 6 light hoeings during the year and this is done on the check or control plots. Results are in maunds of made tea per acre.

Cultivation Experiments

Jat of tea.	No. of plot	Type of cultivation	Yields of tea in maunds per acre		Total
			1922	1923	
Single ...	82	9" deep hoe and 11 light hoes ...	3.62	~~10.30~~ 10.30	13.62
" ...	78	Check normal ...	2.82	8.96	11.78
" ...	80	1922 trenching 18" deep between alternate rows and 6 light hoes. 1923 trenches filled with boga prunings, etc. 1924 6, light hoes ...	2.90	7.90	10.80
" ...	81	9" deep hoe and 4 light hoes ...	2.71	8.07	10.78
" ...	79	No deep hoe but 7 light 2-3" hoes ...	2.66	7.27	9.93
" ...	85	Check normal, 6 light hoes and 1 deep.	1.74	5.74	7.48
" ...	83	9" deep hoe and subsequently only 2 wheel Planet junior hand cultivator to be used ...	1.66	4.45	6.11
" ...	86	Normal except all cultivation to be done with fork instead of mamooty hoes... ..	1.79	3.82	5.61
" ...	84	One round deep 9" hoeing, 2 light forkings with straight forks ...	1.46	3.33	4.79
Matelli ...	87	9" deep followed by clean weeding ...	2.45	12.53	14.98
" ...	93	Check normal ...	3.33	10.74	14.07
" ...	94	18" deep hoe and 6 light hoes ...	3.52	10.40	13.92
" ...	89	Check normal ...	3.02	10.28	13.30
" ...	96	9" deep hoe, 3 light hoes and 3 round circle weeding in rains ...	2.92	10.28	13.20
" ...	88	9" deep and 1 light hoe, money saved on cultivation to be spent on additional manuring, bushes to be circle weeded and jungle sickled when necessary ...	2.62	9.75	12.37
" ...	90	9" deep hoe, bushes circle weeded and kept clean. No other cultivation ...	2.87	8.61	11.48
" ...	91	9" deep hoe and 7 round circle weeding and hand sickling of weeds ...	3.00	8.06	11.06
" ...	92	9" deep hoe and 2 rounds 2.86 circle weeding, sickling ...	2.86	7.63	10.49
" ...	95	9" deep hoe, no other cultivation but sickling when necessary when jungle height of bushes ...	2.48	6.32	8.80

A consideration of the figures of the Matelli plots (87-96) shows that one deep digging and subsequent clean weeding gives the biggest yield over the 2-year period. Second and fourth come the controls receiving normal cultivation and third comes the 18" deep digging with 6 light hoes. Fifth comes 9" deep digging with 3 light hoes and 3 circle weedings while sixth comes deep hoeing, one light hoe and manures. The manure used in 1923 on this plot was blood meal. In 1924 nitrate of soda was used and yield as far as could be seen from the 1924 figures will be about equal to the control plots. It is possible that the blood meal applied in 1923 did not nitrify readily, but better use was made of the nitrate supplied in 1924. Last on the list comes plot No. 95 which gets 1 deep hoe and sickling when the jungle is high without any further cultivation.

It is therefore seen that the amount of weeds and jungle allowed to grow has got a definite influence on the yields obtained. It may also be mentioned that the different types of weeds in plots receiving little or no cultivation have a distinct influence on the tea growth. This was very marked wherever sungrass was present. The bushes looked much better in the patches where only soft weeds were found. It is also found that weed growth is greater on plots receiving phosphatic manures.

The type of cultivation given to plot No. 88 is of very great interest from the South Indian point of view.

The question of wash is of first rate importance and has to receive serious consideration. If by keeping the weeds (soft weed, not grass) or better still growing green manure crops to prevent wash circle weeding the plants and using the money which might be spent in clean weeding in supplying nitrate nitrogen, yields are obtained which are about equal to those obtained under clean cultivation, then it would be as near an approach to ideal cultivation under the conditions as can be obtained.

Looking at the Singlo plot (78-82) figures the 5 extra light hoes given to plot No. 82 gives over 2 maunds increase over plot No. 78 and the 2 extra light hoes given to plot No. 78 as against plot No. 81 shows an increase of one maund per acre. Plot No. 79 has evidently missed its deep hoeing very considerably, but the 18" trenches dug in plot No. 80 does not seem to have had any very great effect.

Comparing plot Nos. 85 and 86, normal cultivation with ordinary mamooty hoes has given better results than the same cultivation done with straight forks. It may here be mentioned that Darjeeling planters still favour the straight fork but the mamooty hoe is the favourite on the plains.

In Java and Sumatra the tea yielding up to 30 maunds per acre is practically never cultivated. By the use of shade, a thick cover of tea bushes and green manure crops weeds are kept down a mulch of organic matter is maintained similar to a forest soil. In Ceylon it is found easier to clean weed continuously than to let jungle get away and then hoe. Ceylon does not always have a dry season which gives an opportunity to kill jungle. Rains cultivation in Northern India aims at the suppression of jungle helped by the cover of tea and shade trees. Depth of cultivation is not insisted on at this period. Deep cultivation comes later when the heavier rains are over but while there is still sufficient moisture in the soil for it to break up easily.

In Southern India Ceylon ideas of clean weeding hold good in some places and where rainfall is not too heavy and where wash is stopped by the tea bushes themselves, for example, low growing China, or other means taken to prevent wash, is undoubtedly quite successful. In places where wash occurs the forest soil formation similar to Java and Sumatra acts very well the mulch produced preventing wash. In unshaded areas probably the best method of rains cultivation would be circle weeding and sickling or hand weeding the remainder of the weeds to prevent seeding and manuring to keep up yields. Closer planting of the tea on slopes too get a thicker cover would also greatly help in keeping down jungle and interplanting with green manure crops lopped up the sides would still further help by increasing the shade and decreasing weed growth, while the organic matter from green manure crops is much richer in nitrogen than that from weeds.

Chemical Manures.—The results of using the various manures may be summarized as follows :—

Manuring.—Nitrogen is the chief factor in producing vegetative growth, that is wood and leaf and unless it is used it is only rarely that manuring will increase production to any extent. It is lost from the soil with comparative rapidity.

On exhausted soils its use is necessary even to maintain the health of the bush and the quality of the tea but when used in excess or when not balanced by phosphoric acid and potash it may lower the quality of the tea and reduce the resistance of the bush to disease. There are very few soils other than first class peat bheels on which nitrogen would not give an increased yield.

The following are the chief sources of nitrogen :—

Sulphate of ammonia.—This manure is soluble in water and therefore rapid in action. It is often effective on heavy clays where nothing else is and is largely used in heavy soil districts, for example, the Dooars' old alluvium. It is sometimes ineffective on sands. When used lime must also be occasionally applied.

Nitrate of soda is soluble in water and in a form absolutely ready for direct assimilation by the plant and therefore of maximum efficiency if it is not washed out of the soil too quickly as it might be on light soils in a district of high rainfall. It is very valuable for bringing on cut back or very weak tea. On soils deficient in potash it has a greater value than that due to its nitrogen alone for the first two or three years.

Calcium cyanamide (nitrolim is a particular maker's brand of calcium cyanamide) usually gives good results on most soils. It sometimes fails on sandy soils. At it contains free lime it is good to use where liming is not practised. On suitable soils it readily changes to ammonia and is therefore rapid in action.

Oilcakes are nearly always effective except on very heavy soils. The effect is often small in the first year of use but used continuously over a series of years, builds up a markedly increasing fertility. It supplies organic matter and a little phosphoric acid and is the safest

nitrogenous manure for very sandy soils. Groundnut poonac and rape poonac are probably the most efficient.

Blood meal is rather more efficient than poonacs but is **expensive**.

Fish manure can be obtained at times (especially in Southern India) comparatively cheaply. It is rather quicker acting than groundnut cake. It does well even in heavy soils.

Animal meal is a well-tried favourite particularly for light soils.

Nervox and similar manures, for example, Sinox are mixtures largely of sinews and skins. They are always slow in action. At Bhorbetta no appreciable increase in crop was found after four years but they appear to be useful in soils with high humus-content.

In the nitrogen experiments at Bhorbetta nitrate of soda has done best over a period of years. The yields for a period of four years upto and including 1923 are appended.

Yields in maunds made tea per acre

—			1920	1921	1922	1923	Total	Percentage increase or decrease or check
Check	...	...	9.58	7.7	7.97	8.67	33.92	...
Nitrate of soda	...	...	10.55	8.1	9.40	12.00	40.05	18.07
Green manure	..	...	10.01	8.4	8.45	10.22	37.08	9.31
Oilcake	...	...	9.86	7.6	9.95	10.50	36.91	8.81
Sulphate of ammonia	...	...	10.24	7.5	8.09	10.04	35.87	5.75
Sinews	...	...	9.55	7.5	7.76	9.00	33.81	-0.32

The nitrogenous manures have been applied annually at rates calculated to give thirty pounds nitrogen per acre. All the plots including checks have received equal dressings of phosphates as bone dust in 1922 and 1923.

Nitrate of soda has well maintained the good yield originally produced. Sinews has not produced any increase in crop during the four years.

Green manure yields are relatively good but the green manures were not grown on the land itself but grown on outside plots and carried into the experimental plots so that the tea has not been adversely affected during the period of growth.

Green manures and oilcake show consistent increases in fertility.

Sulphate of ammonia has not done so well.

New nitrogen experiments started in 1922 compare the following manures showing yields in maunds of made tea per acre :—

<i>Fish guano</i>	<i>Animal meal</i>	<i>Nitrolim</i>	<i>Check</i>
14.3	13.75	13.51	12.51

On the results for the one year Fish guano has done well. These figures cannot be compared with other nitrogen figures as these plots were unpruned while the others were pruned.

Phosphoric Acid.—Phosphoric acid is seldom of much value in increasing production when used alone but when used in conjunction with nitrogen will in most cases show an increased crop over nitrogen alone.

It assists the root growth of all plants and promotes the formation of root nodules and the assimilation of nitrogen by leguminous plants. It hastens maturity and tends to cause a plant to complete its life cycle rapidly. Besides promoting the rapid decomposition of organic matter into useful plant food it also causes the disappearance of certain toxins found in acid soils. For these reasons phosphoric acid should be applied just before sowing a green manure crop.

Phosphoric acid is particularly useful in heavy soils and in wet situations. Its use tends towards quality in tea particularly in promoting regular growth rather than bushes of poor quality.

It tends to promote flowering and hence is a necessity for seed gardens. In ordinary cultivation excessive use may lead to early 'wooding up' and early flowering especially on China and Hybrid jats.

The chief phosphatic manures are :—

Superphosphate is a soluble phosphate formed by the action of sulphuric acid on rock phosphate or in the case of bone supers on bones. On acid soils the use of this manure is not recommended for green crops unless lime is used in the rotation.

Basic superphosphate is formed by adding a certain proportion of lime to the superphosphate the phosphate being converted from a monocalcic phosphate into a acalcic phosphate which is not so easily soluble.

Bones.—The efficiency of the bones as a manure is greatly influenced by the fineness of grinding. When of standard fineness the immediate efficiency is about two-thirds that of superphosphate. When bone is roughly ground the action is slow.

Steaming does not alter the value as a phosphatic manure, but it does reduce the nitrogen-content by one to two per cent.

Precipitated bone phosphate is practically very pure superphosphate with any acidity neutralized by lime. It is quite good but too expensive.

Basic slag is a bye-product of the steel industry. By modern methods of production a poorer slag is obtained than by the older methods. It is considered more efficient for acid soils than superphosphates.

Ground mineral phosphates.—Till recently naturally occurring phosphatic rocks were used as manure only after treatment with sulphuric acid to make superphosphate. Latterly as basic slag on the market became less efficient and more expensive ground rock phosphates has been replacing Basic slag. Experiments in North-eastern India with mineral phosphates on green manure crops has been successful in showing that lower efficiency of ground rock phosphates on acid soils is more than counter-balanced by the lower price.

(To be continued)

GOOD PROSPECTS FOR COFFEE

Effect on Buying Power in New World

The Latin American, says *The Times' Engineering Supplement*, is in prosperous times a ready buyer of Great Britain's best manufactured goods: his only limit is the length of his purse. But the changing fortunes of any one of the great Latin American export staples affect the purchasing power of individuals over an extremely wide series of areas, and the rise or fall of a point or two in prices upon international markets 7,000 or 8,000 miles away frequently makes all the difference between pockets eagerly open or disappointedly shut.

When, therefore, the British exporter observes that one of the food exports of Latin America, enormous in volume and value, has been and is passing through critical times, he pays attention; to-day the opportunities for sales of every fine factory product, from ceramics to celanese, window glass to wireless apparatus, are affected in a marked manner in all regions marked 'coffee' on agricultural maps. Except for the fact that crops are short this season, and that volume is as essential to regional prosperity as high prices, the horizon of the coffee areas, from Mexico to South Brazil, looks rosy. The coffee of the Old World, of course, always finds its market and its price, but is of such small quantity (12 per cent of the world's total production) that active rivalry exists to-day chiefly between two types—that of Brazil, and preponderantly of the São Paulo region, where 960,000,000 coffee trees are cultivated; and the 'mild coffee' bean of the countries bordering upon the Caribbean and Pacific—Central America, the West Indies, Mexico, Venezuela and Colombia.

Effect of Valorization

The growers of mild coffees, usually higher priced than the product of Brazil, have never combined to market their bean; the area of production is spread too far and over too many countries for any plan as yet; but the Brazilian producers and shippers, hand in hand with the Government, have more than once seriously and successfully attempted measures for the 'defence' of coffee. This has been done whenever huge crops threatened to flood the market and to reduce prices to a level below costs of production; its justification lies in the probability of the ruin of thousands of plantations were unwieldy supplies to be offered.

Brazil's coffee lacked ready buyers after the Great War, when cash ran short all over the world; and the São Paulo State Government bought and stored coffee. They still had some 4,000,000 bags in stock in 1923, when,

with good weather conditions and trees covered with the wax-white scented blossoms of the shrub, an avalanche of something like 20,000,000 bags was in sight. Measures were again taken to restrict deliveries, to hold back the prepared bean; and, briefly, this systematized restraint was so successful that within eighteen months Brazil not only disposed of her 4,000,000 surplus bags (of 150lbs. each), but saw prices rise about fifty per cent. This has had a heartening effect upon sales of mild coffees, although some of these, of which also there were large offerings for the 1923-24 season, realized less than the best prices for the high grades. Colombia, exporting something over 2,000,000 bags, received for them £14,400,000.

No Check to U. S. Demand

The great buyer of Brazilian coffee is the United States, Europeans generally preferring Colombian, West Indian and Central American beans, some 7,000,000 bags usually filling this demand, while the coffee drinkers of North America have gradually raised their purchases from 7,000,000 to 11,000,000 bags annually. No less than \$250,000,000, or about £50,000,000, was paid for the United States' imports of coffee last year, seventy per cent, of this total being Brazilian. Each man, woman, and child in the United States consumes 12½lbs. of coffee yearly. The price in pre-war years averaged, retail, 40 cents, or 1s. 8d. per lb., or the traditional 'three pounds for a dollar'; when the price rose last year to 60 cents, or about 2s. 6d. per lb., the coffee buyers and roasters started a war against Brazilian grades, used great pressure, and tried to create a 'buyers' strike.' Housewives were told that, through Brazilian action, prices were too high, and coffee made of such substitutes as burnt maize was offered at 1s. per lb. The result, chiefly, was that the high grade brands, in packages, whose popularity has been due to expenditure of time and money on the part of roasters, have been left upon grocery shelves, and the housewife has bought cheaper bulk coffee; there has been no slackening of demand unaccounted for by over-stocking when the scare began, or by the usual seasonal slowness of trade, the latter perhaps emphasized by the promises of the campaigners that their efforts would presently result in a sharp break in coffee prices, as soon as the Brazilians should be 'brought to their knees.'

But it is now certain that Brazil has a short crop (Santos will ship less than 9,000,000 bags), while Central America and Colombia have fairly marketed their crops already; and in the end the North American buyers recognize the fact that the high prices of coffee will continue, that Brazil cannot be disciplined, and that the best thing to do is to reverse their plans, educate their customers to high prices, and attempt recovery of the package trade. The slogan now before the public is 'coffee is still cheap!' and it is carefully represented that the cost, after all, is but three half-pence per cup—which should not be a difficulty for persons willing to pay 25s. a bottle for inferior whisky.

Meanwhile Brazil has pursued her path of restriction of output, has increased the export tax upon coffee, has created an institute for the permanent defence of coffee, and placed a special tax of one gold milreis per bag for the upkeep of the institute. Guatemala too has imposed a new coffee export tax of about 3s. per bag. While pessimists shake heads over increased export taxation and point to the decay of the Brazilian rubber

trade following the imposition of tremendous dues, the temper of the Paulistas is much more balanced and the markets of the world are watched with unceasing care. Altogether times are good in coffee regions, with no present prospect of difficulty.

CENTRAL TRAVANCORE PLANTERS' ASSOCIATION

(INCORPORATED)

Proceedings of First Quarterly Meeting held at Peermade Club on Saturday, July 4, 1925, at 10 a.m.

Present

Messrs. E. C. Sylvester (*Chairman*), R. C. Elers, H. C. Westaway, J. H. Cantlay, J. F. Fraser, E. F. H. Gerrard, G. P. Farley, R. J. McMullin, W. Glennie, H. Gibbon, C. J. Madden, A. V. Mawer, W. Rowson, W. Watters, W. F. Inman, H. Clarke, B. P. Tailyour, T. A. Kinmond, Sergeant-Major Ward (*visitor*) and W. A. J. Milner (*Honorary Secretary*).

1. *Minutes* of the last meeting were taken as read and confirmed.

2. *Correspondence*.—Read letter re certain building rates and cart hires. It was proposed by Mr. Cantlay and seconded by Mr. Fraser, 'that the maximum rate for earth cutting including transport up to 200 feet should be Rs. 12 per 1,000 cubic feet.' *Carried unanimously.*

Cart Hires.—The Honorary Secretary stated that he would circulate list of rates for confirmation.

Read letter from the Commissioner, Devicolum, asking if any new Telegraphic Offices were required in the district and resolved that the Honorary Secretary should reply that we would like a Telegraphic Office in the vicinity of Bonami or Fairfield, but wished to know what the conditions would be.

Tea Thefts.—Mr. Farley proposed, Mr. Elers seconding, 'that the Association take up the matter of the Stagbrook tea theft.' *Carried unanimously.*

Mr. Westaway was asked to send copy of the judgment in his case and Mr. Clarke kindly promised to send a copy of judgment in a recent case taken by him also.

It was decided that the Bangalore delegates should bring up the question of tea thefts at the Annual U.P.A.S.I. Meeting.

Road Roller.—Decided to write and thank the Chief Engineer for meeting us in the matter of supplying a second steam roller for the Ghat Section, Kumili-Kuruvanuth Road.

3. *District Telephones*.—Mr. Sylvester informed the meeting that all the figures asked for as regards distances from estates to proposed exchanges had not yet come in and that an estimate of the cost of the scheme could only be drawn out after all the information asked for had been supplied. Mr. Farley made suggestions which were to be taken into consideration by the Telephone Committee.

4. **Registration of Estate Carts.**—Proposed by Mr. Sylvester and seconded by Mr. Kinmond, 'that all carts possessed by members of C.T.P.A. or by their employees on estates should be registered.' *Carried unanimously.*

Mr. Sylvester in speaking to his resolution explained that he hoped that if the scheme went through and all our own carts were registered, Government would be more inclined to consider the registration of all carts. A Committee consisting of Messrs. Glennie, Clarke, Cantlay, Westaway and Fraser with the Honorary Secretary were appointed to draw up a detailed scheme.

5. **Bangalore Delegates.**—Messrs. E. C. Sylvester and W. A. J. Milner were elected and were duly instructed as to the subjects they were to bring up.

6. **Report of Control Committee Meetings.**—The Control Committee members went fully into all that transpired at the various meetings and were accorded a very hearty vote of thanks. Proposed by Mr. Madden and seconded by Mr. Westaway, 'that our Control Committee members should in future be asked kindly to circulate their reports before the Association meeting so that the members may have time to consider beforehand the various matters brought up at the Control Committee meetings.' *Carried.*

7. Mr. Sylvester proposed, Mr. W. A. J. Milner seconding, 'that the Honorary Secretary be requested to write and ask the Chief Secretary to Government whether it would be possible for the Forest Department to give the first refusal of all royal trees to the owners of the land on which the trees are growing before putting said trees up for sale by public auction.' *Carried.*

The proceedings closed with a hearty vote of thanks to the chair.

E. C. SYLVESTER,
Chairman.

W. A. J. MILNER,
Honorary Secretary.

NOTICES

U.P.A.S.I. SPORTS CLUB

Bangalore Conference

DEWAR AND SPENCER CUPS

As a reminder to the notice published in the *Planters' Chronicle* of June 13, I would request that entries be expedited in order that Messrs. Spencer may be informed whether the prize will be in the form of a single cup for 'Open' or 'Handicap' billiards, or a double prize in the event of 'Fleas' being played instead of billiards.

The Bangalore Golf Club is pleased to extend a welcome as visitors to all members of the U.P.A.S.I. who wish to play golf during the week.

Will delegates and other planters attending the Conference please send in to me their entries immediately?

Please state your handicap when entering for golf, and for billiards say which you prefer—'Open' or 'Handicap'; or 'Fleas' instead of billiards.

WOODBRIAR ESTATE,
DEVARSHOLA P.O.

Dated July 12, 1925.

(Sd.) G. W. FULCHER,
Honorary Secretary.

THE UNITED PLANTERS' ASSOCIATION OF SOUTH INDIA

(INCORPORATED)

NOTICE IS HEREBY GIVEN that the Thirty-Second Ordinary General Meeting of the members of the above-named Association will be held at the Mayo Hall, Bangalore, on Monday, the 17th day of August, 1925, commencing at 2.30 o'clock in the afternoon and continuing on the following days, for the purpose of receiving the Report of the Executive Committee, Accounts and Balance Sheet, electing a Chairman and Auditors for the ensuing year, and special business as set forth in the statement of Agenda printed hereunder.

By order of the Executive Committee,

MADRAS,
July 14th, 1925.

(Sd.) H. WADDINGTON,
Secretary.

The Agenda

ORDINARY BUSINESS

1. The Chairman's Address
2. Report of the Executive Committee.
3. Accounts.
4. Election of Chairman and Auditors.

The U.P.A.S.I.

SPECIAL BUSINESS.

5. Incorporation of District Associations.
6. 'Planters' Chronicle'.
7. Planters' Provident Fund.
8. European Employees' Provident Fund.
9. Indian do. do.
10. U.P.A.S.I. Sports Club.
11. Political Representation.
12. Upasi Buying Agency.
13. Affiliated Associations, etc.

LEGISLATION

14. The Planting Member.
15. Labour Laws.

COMMUNICATIONS

16. Harbours.
17. Railways.
18. Roads.

LABOUR DEPARTMENT

19. The Director's Report.
20. Labour Rules.
21. The Labour Department.

GENERAL

22. Tea.
23. Rubber.
24. Coffee.

SCIENTIFIC DEPARTMENT

25. General.
26. Rubber Mycologist Station.
27. Tea Specialist.
28. Tea Experimental Station.
29. Coffee Experimental Station.

BUDGET AND FINANCE

BANGALORE—CENTRAL HOTEL, 'The Best in the Station'.

COMMERCIAL AND METEOROLOGICAL

I. The Rupee Exchange for the week ending July 11, 1925

Bank Selling Demand Draft on London

6th	7th	8th	9th	10th	11th
18 3/32d.	18 3/32d.	18 3/32d.	18 3/32d.	18 3/32d.	18 3/32d.

II. Summary of latest Market Reports and Prices to hand :—

(a) Some of the higher London Prices—

Highest prices realized on the London Market			Average prices obtained for tea			
Mark	Pkgs.	Price	District	Week ending June 6	January 1 to June 6, 1925	January 1 to June 6, 1924
(1) TEA (WEEK ENDING JUNE 6)		s. d.		s. d.	s. d.	s. d.
<i>South India</i>						
(a) Anamalais—			N. India.	1 4·57	1 5·73	1 5·50
Periakaramalai ...	151	1 9½	S. India.	1 7·38	1 6·52	1 5·97
Selaliparai ...	50	1 7½	Ceylon...	1 7·81	1 8·25	1 7·94
(b) Nilgiris—			Java ...	0 11·84	1 0·99	1 2·35
Craigmore ...	105	1 10½	Sumatra.	1 3·70	1 4·34	1 4·04
Ibex Lodge ...	62	1 9½				
(c) Nilgiri-Wynaad—			Nyassa-land.	1 1·48	1 2·11	1 3·88
Seaforth ...	176	1 7				
(d) Peermade—						
Stagbrook ...	93	1 7½				
Glen Mary ...	173	1 7½				
(2) COFFEE (No. 1)						
WEEK ENDING JUNE 27						
Bellamannay (Coorg) ...	20	150s.				
Mailloor (Nilgiris) ...	24	146s.				
			Total	1 5·40	1 6·03	1 5·89

N.B.—Fresh selections of prices for the week ending June 6 are given as no figures for the week ending June 13 were received by this week's mail.

(b) Precis of weekly reports on London Markets—

(1) *Tea*.—During the week ending June 20, the market for good to fine, was stronger owing to smallness of supply. Good common to medium maintained previous prices; but commonest and stalky however were only saleable at a further decline.

(2) *Rubber*.—During the week ending June 27, sheet fetched $3\frac{1}{4}$ *d.* and crepe $2\frac{1}{11}\frac{1}{2}$ *d.* The heavy premium on the former as compared with the latter which is usually more valuable indicates that 'bear' speculators have sold sheet forward and are now being forced to buy in a depleted market.

(3) *Coffee*.—Most of the East Indian coffee offered is of increasingly inferior quality and as a consequence being bought in. During the week ending June 27 of 4625 bags offered only 487 bags were sold.

III. Weekly Rainfall Statement

From April 1, 1925, up to and including Saturday, July 11, 1925

Stations are arranged in order approximately south to north and those not in planting districts are shown in small capitals.

Stations	W.	P.	Total	Stations	W.	P.	Total
1. Kalthuritty.	0.76	31.01	31.77	16. Naduvattam	0.88	29.62	30.50
2. Tenmalai...	1.06	33.60	34.66	17. Coonoor ...	0.00	8.83	8.83
3. Munda-				18. Kotagiri ...	0.04	9.14	9.18
kayam ...	0.93	73.49	74.42	19. Ootacamund	0.11	17.04	17.15
4. Peermade...	0.54	56.52	57.06	20. Yercaud ...	0.00	16.06	16.06
5. Vandiperi-				21. Devala ...	1.71	42.14	43.85
yar ...	N.R.	N.R.	N.R.	22. Gudalur ...	0.55	28.95	29.50
6. Kalaar ...	4.44	68.50	72.94	23. CALICUT ...	1.33	47.36	48.69
7. Chittuvurrai	0.10	13.61	13.71	24. Kuttiyadi ...	2.27	62.41	64.68
8. BODINAIIKA-				25. Vayittiri ...	1.40	56.72	58.12
NUR ...	0.00	3.91	3.91	26. Manantodi...	2.25	34.74	36.99
9. COCHIN ...	1.01	49.95	50.96	27. Billigi-			
10. Mooply ...	2.39	41.15	43.54	rangans...	0.55	17.73	18.28
11. Pachaimalai	1.40	46.39	47.79	28. Sidapur ...	0.67	23.29	23.96
12. Mudis ...	10.59	N.R.	N.R.	29. Somwarpett	2.69	24.52	27.21
13. POLLACHIE.	0.16	6.12	6.28	30. Ballupete ...	0.80	24.01	24.81
14. Manjeri ...	1.38	36.66	38.04	31. MANGALORE.	1.50	51.98	53.48
15. Nilambur ...	0.50	24.87	25.37	32. MADRAS ...	0.00	4.32	4.32

W = During the week.

P = Previously.

N.R. = No return.

The Planters' Chronicle

Recognized as the Official Organ of the U. P. A. S. I. (Incorporated)

Managing Editor's Postal Address: POST BOX 155, MADRAS

Do. do. Registered Telegraphic Address: 'UPASI,' Madras

VOL. XX, NO. 30] SAT., JULY 25, 1925 [PRICE, AS. 8

CONTENTS

	PAGE		PAGE
Editorial Notes ...	507	Mysore Planters' Association—	
Stephanodores ...	509	Quarterly General Meeting	523
General Scientific Officer's		Sports Club—Tennis Challenge	
Report on Tour in Assam—		Cup	530
(continued) ...	510	Letter to the Editor—'Dr	
Sports Club Membership List.	521	Leslie Coleman	530
District Notes—Mysore ...	523	Commercial and Meteorological.	531

EDITORIAL NOTES

The Planting Member in Council Capt. E. G. Windle, M.L.C., sailed for England for Bombay last Saturday; and is expected back in October next.

Mr. W. A. Lee, formerly the Assistant General Manager of the Kanan Devan Hills Produce Co., Ltd., sailed this week, with *Mr. W. A. Lee* Mrs. Lee, for Kenya where he is taking charge as General Manager of Messrs. James Finlay & Co.'s estates. We voice, we are sure, the feelings of their South Indian friends when we say that their departure from this country is deeply regretted and that we trust continued health, prosperity and happiness may be their portion in the land to which they go.

We heartily associate ourselves with the hope expressed towards the conclusion of Col. Crawford's letter which is reproduced elsewhere; and are glad to learn that there is still a hope that Dr. Leslie Coleman may return to Mysore and that the *Dr. Leslie Coleman* reports to the contrary received by the Daily Press and ourselves were not strictly correct.

We regret very much that a Printers' Devil changed 'more' into 'mere' on the first line of page 338 in the issue of May 23. *Corrigendum* 'These, however, are more personal considerations' are the words which the Chairman of the Mysore Planters' Association actually used when commencing the last sentence of his comprehensive address.

*A Rubber
Factory for
Australia* The Dunlop Rubber and the North British Rubber Companies are forming a new joint company with a capital of £500,000 to establish a rubber footwear factory at Abbotsford, Victoria. It is expected that the factory will be in full operation next year, and employing some 500 hands.

Each company will continue, heretofore, to manufacture and vend independently lines other than footwear such as golf balls, waterproof sheeting, belting and tyres.

*The Value of
Statistics* Uncertainty, says *The Straits Times*, is the sole explanation of the extraordinary discrepancy between 'Spot' and 'Forward' prices to-day. The aggregate accumulations on Estates and in the hands of Consumers are an unknown quantity; and consequently a negligible stock in London is no criterion of shortage in the world at large.

We have continued the paper, frequently been amazed at the contempt shown by Government officials for trade statistics, and it is obviously the result of ignorance as to trade facts. It is no more than simple truth to say that we are probably losing millions in Malaya because the statistics about available supplies of rubber, and the rate of consumption of the commodity, are so imperfect that no one dares to place much reliance upon them. We give a good deal of time to searching out the facts, but we know perfectly well that the facts we get are only a part of those it would be a very great advantage to possess.

*For the Home-
ward—Bound* Messrs. Thomas Cook & Sons report the opening of a branch office in Baghdad which is the starting-point for the new overland route Home *via* the Syrian desert to Damascus and Beyrout. They also would remind travellers that passports made out for travel 'within the British Empire' are not valid in Gibraltar, Egypt, and mandatory territories like Mesopotamia and Egypt for which specific endorsements are required.

Ourselves Why Managing Editor rather than Editing Manager? The inference presumably is that this class of hybrid should, when its components clash, give pride of place to Editing rather than to what Lord Randolph Churchill—when contrasting the statesmanlike and routine aspects of his work as Chancellor of the Exchequer—called 'those damned dots'. And there can be little doubt that such a standpoint is correct. A paper edited but not managed might conceivably survive for a certain period, whereas a paper managed but not edited is a mere abstraction which could never concretely exist.

But when 'McConnechie' (as the writing half of himself was dubbed by Barrie in his rectorial address at St. Andrews in 1922) has had his day; the other half—the business end—of the personality must be given fitting scope; and the chief outward and visible sign of its activities are not literary effusions, but terse 'duns'.

Our own dunning season is commencing; and our readers, who in many cases are exempt from the unwelcome but unfortunately indispensable visitations of such a period, may be glad of an assurance that the business side of *The Planters' Chronicle* is not being overlooked.

STEPHANODORES

Brazilian Coffee growers are much perturbed by the ravages of the *Stephanodores Coffeæ* (Hagerdorn); which, according to the Commission appointed by Dr. G. R. dos Santos, the Secretary for Agriculture in Sao Paulo, threatens the country with a disaster as serious as that which overtook Ceylon if remedial measures are not taken at once.

The *Stephanodores Coffeæ* was not apparently imported from Java, Uganda, or elsewhere, but originated in Brazil itself; and the moral of course is that coffee growing countries have to be on their guard not only against the introduction of one of the varieties of *Stephanodores* now rampant in different parts of the world but also against some indigenous variety (at present feeding harmlessly and therefore unnoticed) incorporating the coffee bean in its Menu Card. There is happily sufficient resemblance between the habits of the Brazilian pest and those of the *Stephanodores Hampei*, which the Dutch in Java are successfully combating, to afford valuable guidance for the conduct of an exterminating campaign.

Both the *Coffeæ* and the *Hampei* varieties are interesting illustrations of the manner in which insects on occasion discriminately change their food. Until they had haphazardly tasted the coffee grains and found them good they had contentedly fed on other food for years. The *Coffeæ* favoured the pulp surrounding the coffee beans, while its cousin the *Hampei* inclined to rose seed pods. A parallel case is that of the termite or white ant. Until recently its favourite dish was hard dry wood, but of late it has taken to feeding on Australian sugarcane.

The gravity with which the authorities view the situation may be gauged from the flooding of the country districts with pamphlets and bulletins, the placarding of railway stations and post offices with posters, the promulgation of drastic legislation compelling the disinfection of all coffee from affected zones, and even—according to *The Tea and Coffee Trade Journal*—the preparation of story books for supplementary reading in schools, so that the rising generation may by the time it attains adolescence be thoroughly a fait with the methods of combating the pest.

As far as the affected areas are concerned these methods do not include extermination, for the life-cycle of the pest is three months; and, according to the experts, its entire elimination can only be hoped for when the tree can be kept free from berries for that period, and the insect consequently starved out. Incidentally it is comforting to note that this condition could probably be observed were an invasion to be experienced by this country; where the labour problem is less pressing, all the year round crops are extremely rare, and the harvest is complete about mid-February or a good three months before the new berries begin to swell.

Brazil, however, owing to scarcity of labour has to be content with a compromise; based on the observation that from the time the female oviposits to the time the larvæ emerge is about three weeks. Fortnightly picking therefore ensures that the larvæ before they mature will be subjected to the fermentation process which the depulping of the berries involves, and in practice it has reduced the amount of damaged coffee on badly infested estates from 50 per cent to 10 per cent or less.

Botanists again hope by grafting and hybridization to develop coffee trees more or less impervious to the pest. Susceptibility to its on slaughts vary very widely and according to statistics compiled on a percentage basis by the Java Experimental Station are :—

Dybowski	... 2·3 per cent.	Stenophylla	... 4·7 per cent.
Liberia	... 3·5 „	Liberica-Arabica	
		hybrids	... 6·9 „
Abeokuta	... 3·8 „	Robusta	... 23·4 „
Excelsa	... 4·7 „	Quillon	... 50·7 „

The Entomologists finally have discovered in Uganda wasps whose sole object in life appears to be flying from coffee-berry to coffee-berry searching for stephanodores on which to feed. Some have been imported to the Java Experiment Station where they are being propagated with all the haste the laws of nature permit. These wasps however do not yet appear to have been shipped to Brazil, and possibly climatic difficulties stand in the way.

REPORT ON TOUR IN ASSAM

BY

D. G. MUNRO, B.Sc.

THE

GENERAL SCIENTIFIC OFFICER, U.P.A.S.I.—(continued)

Examples of phosphate manures now on the Indian market are :—

1. *Belgian flour phosphate*.—A soft relatively soluble rock consisting almost entirely of phosphate of lime with limestone which latter is also useful for green in crops.

2. *Algaricum flour phosphate*.—A harder and less soluble rock containing more iron oxide and probably not quite so good as above. It also contains some free limestone.

3. *Ground Sunghbhum phosphate*.—A finely ground Indian phosphate probably of much the same efficiency as the Algerian. The large amount of iron oxide occurring naturally is reduced by picking out with electro-magnet. It contains little free limestone.

4. *Radiophosphate* comes from the same source as No. 3, but the oxides of iron are not removed. It is claimed that its radio-activity stimulates growth.

Phosphoric acid not used up in the first year remains in the soil to give residual effect in future years. The total effect over many years is about the same for all phosphates. For the growth of a green crop an immediate effect is required and may be obtained by using a larger quantities of the cheaper and slower acting kinds and thus a large residual effect is cheaply obtained.

Potash manures.—These seldom give any increase in crop if used alone, but as an addition to other manures is often leads to increased efficiency. Its special functions are—

1. It lengthens the period of vegetative growth and therefore tends towards a longer flushing period and so increases the end-of-season good quality tea and helps to keep unpruned tea flushing towards the end of the season.

2. It increases the plant's resistance to disease.

3. It helps to produce strong wood on cut back tea.

4. It is essential for good growth of young seedlings and hence often useful for nurseries and green manure crops. It is seldom much used on clay soils but it is essential on sandy soils of low potash-content particularly in situations liable to drought.

5. It assists in filling sound seed and it must not therefore be neglected on seed gardens.

The main sources of potash are muriate and sulphate of potash, potash salts, kainit and nitrate of potash which supplies nitrogen in a very available form as well as potash.

All these forms of potash are all soluble and of roughly equal value as manure. At present prices muriate of potash is cheapest and is on the whole found to be rather more efficient.

Wood ashes contain a certain amount of potash generally between 4-5 per cent if not washed by rain. If they contain 5 per cent potash wood ashes are worth about Rs. 20 per ton. When prunings are burnt the ashes are useful but for every Re. 1 retained Rs. 3 has disappeared as well as all the organic matter.

Cattle manure besides supplying the necessary plant foods in varying quantity, also enormously improves the physical condition of a soil. The most economical rate is about five tons per acre and although the application is relatively costly, every effort should be made to obtain and apply as much as possible on any soil.

Liming.—Truog summarizing the results of his experimental work on lime, soil acidity, and their relation to plant growth states as follows :—

‘With a few exceptions agricultural plants grow best on soils well supplied with readily available lime. To be readily available, lime may exist either as the carbonate, as an easily hydrolyzable silicate or salt, or as a constituent of easily decomposable organic matter. The classification of agricultural plants as being lime loving, lime avoiding and indifferent, or as being acid intolerant, acid tolerant and indifferent, leads to confusion and gives the wrong impression regarding the relation of lime and soil acidity to plant growth. The subject is very complex and as has been indicated, soil acidity has many indirect and general influences on soil fertility due to its effect on physical, chemical and biological conditions of the soil.

It is well known that an acid condition is unfavourable to the highest development of desirable physical and biological soil conditions. An acid

condition usually lowers the availability of nearly all the essential elements. On the other hand, soil acidity usually favours the accumulation and solubility of toxic organic and inorganic substances. Among these toxic substances soluble aluminium salts have been noted by a number of investigators, and possibly in some cases manganese salts should also be considered. In certain unusual cases of soil acidity sufficient amounts of these toxic substances may be present to be very harmful to some plants. The relation of soil acidity and liming to mal nutrition due to a lack of iron in the plant, to plant diseases and to plant competition also need to be considered in a few special cases, particularly in cases where soil acidity appears to be a favourable condition.

Besides the indirect influences which affect all plants, and some probably due to a considerable extent, soil acidity has a specific influence which affects some plants like alfalfa and sugar beets very much more than others, like cowpeas, potatoes and oats. At various times this specific influence of soil acidity has been ascribed to at least three causes, namely, (a) its effect on the supply of available calcium needed by plants as direct plant-food material, (b) its effect on the symbiotic nitrogen-fixing bacteria, and (c) its toxic or destructive effect on the root tissues of plants.

The supply of available calcium in all forms becomes less as soils become acid, but usually there is still sufficient present to furnish that needed as direct plant-food material. Since the symbiotic nitrogen-fixing bacteria live in the nodules, soil acidity cannot affect them directly, except before they enter into symbiosis, when it may lessen their activity and delay the time of infection. Since the relation of non-legumes to soil acidity runs parallel with the relation of the legumes, it follows that the direct influence is not on the legumes bacteria, but on the plants themselves.

That this direct effect on the plants is not often due to a destructive action of the acidity on the root tissues is evident from the fact that experiments have shown that plant roots are unaffected by solutions of a higher acidity than that of most acid soil solutions. This is further substantiated by the fact that the acidity (H-ion concentration) of the sap of most plants is of the same order as that of the soil solution of most acid soils, indicating that similar processes are probably at work in the two cases, as a result of certain analogous conditions which exercise a regulatory function in this respect. It is undoubtedly largely proteins in the case of plants, and colloidal organic and inorganic matter, especially silicates, in the case of soils which act as 'buffers and thus bring about this regulation of acidity to a considerable extent, preventing rapid changes and unusually high degrees of soluble acidity.'

In most cases it thus appears that the main specific harmful influence of soil acidity on certain plants is not due to any of the three suggested reasons, but to its influences in preventing these plants from getting at a sufficiently rapid rate the calcium as the carbonate or bicarbonate which is needed to neutralize and precipitate certain acids in the plants themselves, which are probably largely bye-products, produced as the result of certain vital reactions in the growth of plants. If calcium in these forms is not furnished at a sufficiently rapid rate, then the rate of these reactions is lowered accordingly as is also the rate of plant growth.

Each species of plant has a certain lime requirement which must be satisfied for maximum plant growth and this lime requirement is defined by the writer as follows :—' The expression "lime requirement" of a plant refers to the actual lime needs of the plant itself, especially as to the ease and rate at which lime must be secured from the soil by the plant for normal growth.' Thus if a plant has a high lime requirement, then the solution and delivery must be rapid and easy in order to meet the needs of the plant.

The three main factors which determine the lime requirement of a plant are (a) lime content, (b) rate of growth and (c) feeding power of the plant for lime. The first two factors operate in one direction while the third operates in the opposite direction. That is, the higher the lime-content and the rate of growth, the higher will be the lime requirement and conversely. Also, the higher the feeding power for lime, the lower will be the lime requirement and conversely. The resultant of these three gives the lime requirement of the plant. Lipman in *Soil Science*, Volume VII, 1919, in the case of potatoes, observes as follows :—' Potato growers in New Jersey prefer acid soils for their crop. They justify this attitude by the claim that pronounced acidity in the soil assures to them a relative freedom from potato scab. That their claim is essentially sound is borne out not alone by the accumulated experience of many individuals, but also by adequate and convincing experimental study.

The potato growers recognize, at the same time, that a high lime requirement is entirely contrary to the effective and economical maintenance of the soil nitrogen supply. Whenever the lime requirement passes a certain point for any given soil type the growing of clover and alfalfa become increasingly difficult, and the accumulation in the soil of atmospheric nitrogen is accordingly depressed. Hence it becomes necessary to reconcile two opposing tendencies in the growing of large crops of clean tubers. It becomes desirable to create a pronounced acid reaction for the potato crop itself and later to reduce the acidity to a degree that would allow the successful growing of the lime-loving legumes.

A means to this end may be found in powdered sulphur. It would be quite feasible to apply in the early spring, or late in the preceding fall, a sufficient quantity of sulphur to establish any desired degree of acidity for the potato crop. Quantities of from 300 to 1000 pounds per acre of powdered sulphur could thus be employed, the exact amount to be determined by the physical and chemical make-up of each soil. After the potato crop is harvested the existing acidity may be ascertained and corrected by the use of lime. In this manner the soil reaction of any field may be varied from year to year to meet the needs of the potato crop, as well as of the legumes. In a more general way the same method may be employed to maintain such soil reaction as may seem best, after proper experimental study, for any crop on any soil type.'

The conclusions arrived at in the case of tea are as follows :—

A case has not yet been found where tea grows well on an alkaline soil while on most alkaline soils attempts to grow tea have failed altogether. All good tea soils are acid and some growing particularly fine tea are of very high acidity. To add enough lime to a tea soil to correct its acidity is not only unnecessary, but undesirable.

Following agricultural practice at home small dressings of lime have been used very widely in tea cultivation and reports from planters both in Northern India (and Southern India also) have in many cases been favourable, but there are cases where harm has resulted and many others where no result could be detected.

Although direct reduction of acidity may seldom be required on tea soils, lime may have good effects in the following ways :—

(1) Acid soils sometimes contain toxine which have a bad effect on tea. There also appear to be degrees of and kinds of acidity bad for tea such as may be produced by continuous use of sulphate of ammonia.

(2) Lime flocculates clay and so improves the physical condition of heavy soils making them easier to work and giving more efficient drainage.

(3) Lime nearly always assists the growth of green manure. Soils which grow crops so poor as to be valueless will often give excellent results after liming so that the cost of liming is quickly returned in the form of the all-important organic matter and nitrogen so obtained.

(4) Lime is often effective against diseases, particularly certain kinds of root disease.

(5) Lime increases the efficiency of most organic manure and of sulphate of ammonia.

Results of experimental work to date show that :—

(1) Highly acid soils are found to grow very high yielding tea while soils of very low acidity include no very good tea soils.

(The acidity of several South Indian tea soils from different districts examined at Tocklai as measured by their H-ion concentration show no great difference from average tea soils of Northern India.)

(2) At Bhorbetta up to three years after application lime causes a small but distinct depression of crop. Quantities between five and eighty maunds per acre were tried both as slaked lime and as crushed limestone.

(3) On certain soils, for example, Red Bank soils liming had slightly increased crop but the increase so far has not paid for the application. Experimental work with heavy doses of lime 200 to 400 maunds per acre shows that such heavy liming will seriously affect their growth if not actually kill out bushes.

Application of sulphur in such quantity as to neutralize the alkalinity occasioned by the lime had good results in bringing round the bushes again.

With the heavier doses of sulphur it was very noticeable that acidity was so high that weeds refused to grow whereas on the unsulphured areas abundant growth was evident.

Pending further experimental work on the subject it is believed sound to use some lime on average normally acid soils up to ten maunds or 800 pounds slaked lime every fourth or fifth year. Such an application can do

little harm and there is a strong probability that it might do good by improving tilth, by preventing disease, by giving better green manure crops, and possibly by preventing accumulations of toxic substances in the soil.

A consideration of experimental work on manures has led to a system of manurial rotation which insures that every section misses no manure and stabilizes the amount of labour required each year. While supplying in the course of the rotation all the necessary plant-foods it aims at supplying each just when it should be most beneficial.

In the rotation

(1) the phosphatic manure should be mainly given in the year that a green crop is sown ;

(2) the lime application should be made directly after trenching and the year before that in which a quick growing crop is grown ;

(3) potash should be applied together with nitrogen ;

(4) nitrogen will generally give better results in a year after a green crop is grown ; and

(5) nitrogen should not generally be applied in the year during which a green crop is grown.

The following is an example of a cheap and efficient rotation :—

First year	...	Lime.
Second year	...	Phosphate and quick growing green crop like cowpeas.
Third year	...	Nitrogen and potash.
Fourth year	...	Boga Medeloa (<i>Tephrosia candida</i>) sown.
Fifth year	...	Green parts of Boga Medeloa trenched in every fourth line or deep hoed in.

The garden is divided into five blocks each receiving the different manures in turn.

If more manure is required a complete manure may be applied in the first, fourth and fifth year as well.

Cattle manure may replace part of the green manure crop if available. The whole rotation depends on the green manure crop and if cattle manure cannot be applied it must always form part of the soil treatment as the organic matter is all-important.

In Northern India sowing of green crops is recommended as early as possible not later than May 15, and all green crops should be hoed in or sickled by the end of June. The addition of the organic matter is of utmost importance. Concentrated organic manures supply very little organic matter as compared with cattle manure and green crops and the high prices charged for them practically forces the use of soluble chemical nitrogenous manures like sulphate of ammonia and nitrate of soda while relying on green crops and cattle manure for the necessary organic matter.

Time of Application of Manures

The climate of Northern India is essentially different from that of Southern India in at least one main respect.

The growing period begins with the first rains in April and May and the yield of leaf steadily increases up to August and September when a gradual fall is experienced until about November and December when growth practically ceases again. A period of comparative rest follows when very little growth takes place and at this time pruning is generally done.

During June, July and August rain may be comparatively heavy, but the temperature does not fall to any extent and production shows a gradual increase to its maximum about August and September and then a gradual falling off towards November.

In Southern India the position is different. The first flush of the season usually starts in April and May with the first rains and carried on till about June. With the breaking of the South-West Monsoon the amount of rain which falls increases and at the same time temperatures decrease with the result that yield of leaf falls considerably during July and August. In September to October temperatures are higher and there is sufficient moisture for good growth and another period of flushing takes place till it gradually decreases in November and December. Flushing however does not stop but continues right through until the fresh spring rains cause another period of flushing. In production therefore for Southern India generally there are two apices one occurring in April to May and the other in September and October as against Northern India's one about August.

Application of nitrogenous manures in Northern India is generally done about March to April and better results are obtained by application at this time than later on in the season about June. The application of a nitrogenous manure like sulphate of ammonia in June will show a definite increase in yield, but not such a large increase as is obtained by applying the same amount of manure in April. The early application seems to give such a start to the bushes that they come away better and do better than during the season.

The percentage monthly yields during the different months of the year are shown by figures obtained from estates in different districts, also rainfall and where possible maximum and minimum temperatures.

There is a similarity between the percentage yields obtained in each month from the different districts, but a point that has never been accurately determined experimentally is whether manuring early in the year to increase and prolong the first flushing period will give better results than manuring to increase and prolong the September to October flush.

Estate figures seem to show that yields during August can be increased by early manuring, but later manuring seems not only to increase and prolong the September to October flush, but also to produce a less hard and less leathery leaf than is usually obtained in the open at medium, low elevations during the dry months of January to February and March and approaching more to the quality of leaf obtained from under medium shade during that period. At this period too, conditions of manufacture are better than those obtained during the monsoon.

Table showing the percentage yield, rainfall, maximum and minimum temperature in Nilgiri-Wynaad, Anamallais and Central Travancore.

Months	NILGIRI-WYNAAD						ANAMALLAIS				CENTRAL TRAVANCORE			
	A			B			A		B		A		B	
	Percentage yield	Rainfall	Maximum temperature	Minimum temperature	Percentage yield	Rainfall	Percentage yield	Rainfall	Percentage yield	Rainfall	Percentage yield	Rainfall	Percentage yield	Rainfall
January	4.5	0.28	74	64	5.6	1.10	5.4	0.62	3.6	0.40	6.12	1.83	4.72	0.41
February	4.7	...	77	66	5.8	...	5.7	...	3.3	0.12	4.68	2.07	6.91	1.47
March	4.1	1.29	83	69	4.3	0.74	4.2	0.86	3.2	0.21	8.64	1.04	9.56	0.44
April	6.7	2.52	82	72	5.4	1.09	10.5	4.90	8.1	3.48	11.31	4.67	9.49	2.52
May	10.1	3.11	80	72	5.7	3.93	14.1	6.63	12.8	3.99	12.51	3.13	13.94	11.77
June	6.4	16.77	76	70	7.4	32.08	4.9	40.29	5.9	28.56	6.11	63.23	8.35	48.67
July	8.8	43.48	75	70	8.2	90.33	5.1	118.20	8.7	83.18	4.33	81.19	2.09	74.33
August	10.0	8.38	75	71	13.6	25.51	5.2	30.02	6.7	23.70	1.55	62.67	5.38	40.18
September	13.8	8.35	79	69	16.4	12.44	10.5	15.31	14.2	17.34	13.24	24.08	8.79	26.47
October	11.7	3.34	82	67	11.4	3.09	12.8	6.04	11.6	8.17	13.37	7.70	11.53	19.69
November	11.2	2.17	76	66	8.8	2.49	11.4	2.30	12.6	3.35	10.69	6.18	10.64	23.85
December	8.0	1.81	76	60	7.2	2.26	10.2	1.51	9.3	0.33	7.43	2.60	8.59	0.51

Green manure crops.—As a short, quick growing green manure crop cowpea *Vigna catiung* is about the best known and answers the purposes very well. Of the high growing ones the most used are *Tephrosia candida*, Red Gram *Cajanus indicus* and Daincha *Sesbania aculeata*. These are often sown every second or third row and allowed to grow high, the sides being lopped up to give a spreading top which not only produces a certain quantity of leaf, but also gives a certain amount of shade. Growth of these green crops is generally much quicker and stronger in Northern India than in Southern India.

Shade trees.—(Only the chief ones are mentioned.)

On the whole the favourite shade tree is *Albizzia stipulata*, or the Black San. It gives a light even shade and provided it keeps healthy, is as good as any. It loses its leaf in December to January and flushes again in April to May. In many districts about twenty-five years is given as its average length of life.

Albizzia moluccana is very brittle and a very rapid grower and does not canker so easily as *Albania stipulata*. It has a bigger leaf and gives heavier shade.

Albania procera (White Siris) has a still bigger leaf and gives heavier shade. It is not so quick growing as *stipulata* but is about next favourite as a shade tree. It gets cankered, but not so badly as *stipulata*.

Albania lebbek (Karo) is somewhat similar to *Albania procera*, but gives a heavier darker shade and is slower growing.

Dalbergia assamica (Boga Medeloa) is often used where *Albania Stipulata* has died out. It is comparatively slow growing but gives a very nice shade.

Derris robusta is somewhat similar to *Albizzia procera*, and is a very useful shade tree, but is apt to get attacked by insect pests in the forks of branches.

Jats of the tea bush.—There are roughly three main jats, namely dark-leaved, light-leaved and China and these show very great variations on themselves. Dark-leaved are mostly Burmah or derived from Burmah and generally speaking the higher the elevation from which wild Burmah seed is obtained the smaller is the leaf until at the higher elevations a type approaching China in general appearance is obtained. Rumour or history or a mixture of both point to the fact that tea was originally imported into China from the hill districts between Assam and Burmah, but with what amount of truth it is impossible to say. The lower elevation wild Burmah has a much bigger leaf and it is possible that originally they were all one type and that the differences now seen at different elevations are due to the different conditions of growth and the processes of natural selection towards suitable types.

In the classification of jats it is very difficult to fix on any charactersitic which may be used as a constant.

Growth varies very considerably under different conditions of climate and soil. Young wood produces bigger leaf than old wood and the better the treatment the bigger the leaf. It is also noticeable that when even a

level nursery is planted out very great differences appear in a few years between individual plants. Of interest in this connection are the varietal plots grown at Tocklai. Seed from fifty-four different seed gardens was obtained and planted under similar conditions and are now under comparison for evenness of type.

An interesting experiment is being carried out at Bhorbetta. About two dozen plants of Lushai Hill variety were selected as being as equal as possible in size and also by actual measurement of leaf area. They were planted out nearly two years ago. The difference between these plants now is enormous, some of them standing about ten feet high with magnificent growth while two or three are only about two to three feet high. It does not seem possible that this variation in growth is due entirely to the soil. The question of well or badly filled seed was probably eliminated by the selection of the plants after the germination was passed and the plants were entirely dependent on the soil for their sustenance so that the question seems to resolve itself into one of parentage and possibly disease. It would be very interesting to keep, separate and grow seed from various seed mother trees in order to see the variations in the plants produced from the seed from each individual tree.

Dark-leaved jats are mostly Burmah. Dark Manipuri is probably a derivative of larger-leaved Burmah.

Light-leaved jats may be separated into three types, Betjan, Singlo and Lushai Hill. Betjan has a medium-sized leaf, is fairly hardy and is largely grown in Upper Assam. It is probably synonymous with what is known as Dibrugarh village seed.

Singlo has a long narrow leaf and does well in favoured situations. It is not so hardy as the Betjan type.

Lushai Hill has a big broad leaf. It also does well in favoured spots, but it has the reputation of not producing so much tip as the others. At Bhorbetta when planting out the number of vacancies amounted to nearly twenty to twenty-five per cent while hardy dark-leaved types usually show only two to five per cent vacancies.

The light-leaved jats are generally more in favour in the more equitable climate of the Assam Valley and they do very well there. In the Dooars and Surma Valley where greater variations of climate are met with the dark-leaved types are more largely grown. They are generally recognized as being hardier and while not producing quite the same quality tea stand up better under harder conditions of climate and treatment. It is generally recognized in Southern India also that dark-leaved jats are preferable under the more strenuous conditions and for such work as in filling a very hardy dark jat like Jettinga Valley or Matelli is of the greatest use.

China, while steadily being replaced by indigenous jats in the lower elevation districts still has a stronghold in the high elevation gardens in Darjeeling where it is reckoned to be second to none in the production of tip and flavour for which the best Darjeeling teas are noted. At medium elevations China is being replaced by indigenous types as it is reckoned that anything that may be lost in quality is more than made up for in quantity.

Of great interest in this connection is the type obtained from Indo-China and seen at Tocklai. This is a small-leaved variety with enormous powers of seed-production. The second year of planting at Tocklai a good seed crop was obtained and plants from this seed are now being planted on a field scale for yield comparison. It is questionable whether it will prove up to indigenous jats as a leaf producer.

Tea seed production.—Production of seed is annually receiving more and more attention. It is generally admitted that 9×9 feet is insufficient for seed trees and 12×12 feet or 15×15 feet is necessary for full development. A full rounded bush is aimed at in pruning as it seems to be the case that most of the seed is borne on the side branches. In order to get a full bush collar pruning is done and the shoots may be induced to grow outwards by putting a prick or stone in the centre. Further pruning consists mainly in keeping down woody centre growth and inducing side growth. This is helped by nipping off the end bud of the up-growing shoots late in the season. If this is done too early new growth will start again and the process will have to be repeated.

It is generally recognized that seed from a young seed garden does better and gives a more even nursery than seed from an old seed garden. Twelve to fifteen years is given as the time after which such deterioration of seed is noticeable but with good cultivation, manuring and pruning it has been found possible to arrest this process of deterioration and prolong the life of the seed garden for a considerable period. There are two explanations of such noticeable deterioration.

(1) As the seed garden gets older and the fertility of the soil reduced the possibilities are that the seed is not as well filled as it was when the garden was younger and this less-well-filled seed would produce poorer plants in the nursery. There are also diseases such as bark canker which affect the seed mothers and no doubt interfere with the vitality of the seed produced.

Proper manuring, cultivation and pruning help to retain the vigour of the seed mothers and through them the vitality of the seed.

(2) Where the seed mothers are of mixed jat, it may be that while the garden is young the better jat bushes produce seed in greater quantity than the poorer jat bushes do, but as the garden gets older the better jat bushes may not be able to produce seed in as great a quantity as the harder poorer jat trees do and so the actual proportion of good and poor jat seed produced is changed.

More and more attention is being paid towards the type of seed mothers and those which do not come up to standard are removed and replanted. The standardizing of type in seed mothers is bound to have an effect on the evenness of the plants produced from their seed.

Seed for planting is allowed to ripen and fall and is gathered off the ground. It is tested in water and floaters removed. It is found that generally floaters produce poor plants but if seed has been kept for some months a certain amount of shrinkage may have taken place and perfectly good seed may float. Such floaters may be kept for a few days in moist sand or charcoal. Seeds which have shrunk inside expand under this treatment and fill the shell and when tried a second time they sink. After

two such trials the remainder may be cast. Experiments are in progress to determine whether it will not be possible to introduce methods of storage which will prevent such shrinkage taking place and retain the vitality of the seed for a longer period. For the removal of sinkers which are diseased the best method is said to be the following. The seed is put in a single layer on a hard floor and covered with two inches ordinary loamy soil for a few days. The seed is then carefully picked over by hand and any seed to which the soil adheres is removed. The soil does not stick to healthy seed, but does to the unhealthy. It is possible to see moulds and Fungi growing on the outsides of diseased seed and this is probably the reason for the soil sticking to them.

In an examination of three lots of fifty seeds placed in germinating pans eleven days previously it was found that there were no floaters but four per cent, six per cent and six per cent were found to be diseased and moulds and fungies growth visible to the naked eye. This external growth is possibly the reason why soil sticks to these diseased seed and why this method is such a sound one.

It is found that the vitality of the tea seed is quickly lowered with age and the sooner the seed is germinated after picking the better are the chances of getting a high percentage germination.

The seed is germinated in pure sand, care being taken to eliminate the organic matter which when rotting produces Carbon Dioxide gas which hinders germination.

The distance apart at which seed is planted in the nursery depends on the age at which the young plants are to be put out. If six months' plants are to be used four inches in the nursery are allowed but with older plants six to nine inches are allowed. With ball planting as is practised in Northern India it is found that with closer planting in the nursery, a considerable proportion of the plants have to be discarded, but with wider planting the proportion is reduced.

(To be continued).

U. P. A. S. I. SPORTS CLUB

Membership List

June 30, 1925

ANAMALLAIS

Life Members—

C. R. T. Congreve.
D. Cooper.
E. Hardy.
E. N. House.
J. A. R. Lloyd.
J. Hatton Robinson.
E. W. Simcock.

—
P. E. Orchard.
C. L. Clarke.

C. R. T. Congreve.
A. C. Cotton.
A. V. Danagher.
T. Davenport.
E. V. Hammond.
Dr. McEnery.
C. L. Napier.
A. Peachy.
C. K. Pittock.
J. E. Sampson.
F. Simmons.
H. H. Stuart.
R. Walker.

CENTRAL TRAVANCORE

Life Member—

J. S. Wilkie.
—
The Association.
G. P. Farley.
A. R. St. George.
W. F. Inman.
R. McMullin.
W. A. J. Milner.
E. C. Sylvester.
J. M. Wilkie.

Membership List—(continued)

COORG

The Association.
H. W. Bell.
J. F. Fraser.
E. M. Gray.
T. A. Kinmond.
A. F. Magniac.
J. S. H. Morgan.
L. Newcome.
S. P. St. C. Raymond.
J. V. Shank.
B. P. Tallyour.

KANAN DEVANS

Life Members—

W. J. Dixon.
W. A. Lee.
H. L. Pinches.

The Association.

J. Aitken.
J. M. Bridgman.
R. Brown.
P. G. Campbell.
G. W. Cole.
J. C. B. Craske.
R. B. Cullen.
A. H. Dixon.
E. H. Francis.
A. Fryer.
G. P. Gouldsbury.
E. E. Grandage.
C. A. V. Grant.
J. Gray.
J. S. Hawkins.
G. A. Holden.
G. L. Jack.
A. W. John.
R. S. Keir.
H. Kirby.
M. C. Koechlin.
W. P. Laird.
A. W. Leslie.
A. G. Macgregor.
D. M. MacIntyre.
H. S. Mackay.
Wm. Mackenzie.
G. D. Marr.
H. G. Marshall.
A. Ff. Martin.
B. H. Mathews.
E. C. McCankie.
W. O. Milne.
H. E. W. Newman.
J. A. Nicolson.
J. Olney.
F. Patterson.
E. M. Pinks.
E. E. Ranicar.
R. St. C. Shields.
J. Stanton.
A. Steven.
G. R. Strachan.
F. V. Stuart.
H. Swayne.
J. C. Swayne.

J. W. Tolson.
H. S. B. Wallace.
A. J. Wright.
A. Yates.

MUNDAKAYAM

Life Member—

J. J. Murphy.
E. S. Conner.
W. Gillespie.
R. N. W. Jodrell.
G. Macpherson.
G. A. Rutherford.
C. O. Smith.
J. S. P. Symons.
A. D. Vincent.
J. R. Vincent.

MYSORE

Life Members—

C. H. Godfrey.
E. L. Poyser.
A. H. Courpalay.
H. H. English.
C. Lake.
W. H. F. Lincoln.
E. M. Nixon.
J. Lee Stewart.

NILGIRIS

Life Members—

Sir Fairless Barber.
Capt. E. G. Windle.

The Association.
R. F. Bryant.
T. C. Colthurst.
A. S. Dandison.
C. R. C. Daubeny.
L. F. Lake.
B. A. Marden.
S. C. Reilly.
R. L. Stuart.

NILGIRI-WYNAAD.

Life Members—

J. B. Addkins.
J. Aird.
H. L. Cuthell.
R. Fowke.
G. W. Fulcher.
J. S. Nicolls.

W. K. Baillie.
L. W. Bellers.
R. Bently.
P. W. Davies.
A. Foote.
G. W. Fulcher.
E. L. Koechlin.
D. Mackintosh.
R. M. Morrow.

P. A. Naylor.
J. C. Nicolls.
R. M. Nicolls.
W. Seton Scott.
M. J. Wright.

SOUTH TRAVANCORE

Life Member—

E. Lord.
John B. Cook.
E. T. C. Farr.
L. J. Jackson.
F. H. Powell.

SHEVAROYS

The Association.

WEST COAST

Life Members—

W. K. M. Langley.
H. J. Walmesley.

The Association.
G. M. Brameld.
W. F. Campbell.
M. R. Fetherstonhaugh
Campbell Hunt.
C. Jackson.
A. W. Knight.
R. Lescher.
J. G. Mitchell.
J. T. Murray.
W. W. Prager.

WYNAAD

Life Members—

H. C. Davies.
T. P. Gauld.
S. H. Powell.

The Association.
G. Bayzand.
B. M. Behr.
J. C. Blackham.
R. S. Creed.
B. D. Darkin.
E. E. Eyre.
I. W. Finlayson.
J. A. Gwynne.
H. J. C. Hammond.
R. A. Leslie.
W. W. Mackay.
N. C. Whitton.

U. P. A. S. I.

Major C. H. Brock.
A. Dunning.
A. G. A. Dunning.
A. McDougall.
A. H. Mackie.
E. Vincent.
H. Waddington.
F. W. Winterbotham.

DISTRICT NOTES

Mysore

The monsoon is, I suppose, a subject of general interest at the present time. I will begin, therefore, by telling you how we in Mysore have fared so far. At the end of June there was quite a heavy burst of five days. On some estates over twenty inches fell in three days. This burst was accompanied by a terrific wind which did considerable damage to the shade trees. On some estates it looked as though a very haphazard shade regulation had been carried out and not afterwards tidied up. Since that date the weather has been warm and sunny with only occasional showers. Perfect weather for planting.

The Mysore Association held its Quarterly General Meeting at the Kadur Club on June 29. As it was suddenly learnt that Dr. Leslie Coleman was shortly leaving Mysore on leave, an invitation was sent to him asking him to attend the meeting and a farewell dinner at the Club. Fortunately Dr. Coleman was able to come. Considering the short notice given and that in many cases no notice was given, it was pleasing to see that twenty-five people, including four ladies, were present. There is no need for me to write about the meeting as details of this will appear shortly in this paper.

The dinner was a great success. Mr. C. H. Browne of Kerkie Coondah Estate, in proposing the health of Dr. Coleman, voiced most appropriately the thoughts of all, any way judging by the manner in which his words were received and the toast drunk. The departure of Dr. Coleman is a very great blow to all planters, both Indian and European, for the work he has done is immeasurable. (Next morning). It was with great regret and with a hope that he would return to continue his good work that each and everyone said goodbye to Dr. Coleman.

Note.—Since writing the above the monsoon has come again apparently for keeps.

M. A. DE W.

MYSORE PLANTERS' ASSOCIATION

(INCORPORATED)

Proceedings of a Quarterly General Meeting of the Mysore Planters' Association (Incorporated) held at the Kadur Club, Chikmagalur, on Monday, June 29, 1925.

Present

Messrs. E. W. Fowke (*Chairman*), H. Browne, F. R. P. Cannon, Major C. C. Couchman, Col. W. L. Crawford, D. S. O., Messrs. S. H. Dennis, M. D'Souza, R. G. Fester, C. H. Godfrey, Major A. L. Hill, O. B. E., M. C., Messrs. W. H. F. Lincoln, L. Newcome, Capt. E. M. Nixon, Messrs. R. O. Oliver, K. T. Sheshaiya, B.A., LL.B., and M. A. de Weck (*Secretary*).

Visitors

Mr. C. H. Browne and Dr. Leslie Coleman.
The Notice calling the meeting was read.

Minutes of the previous meeting

Major Hill drew attention to the fact that a correction was necessary in the last para of his address, the word 'mere' being a misprint for 'more'. The Secretary was instructed to ask the Editor, *The Planters' Chronicle*, to insert a notice of correction. The Minutes were then taken as read and confirmed.

Before proceeding with the business of the meeting, the Chairman rose and expressed his pleasure at Dr. Coleman being able to be present.

He said it was with great regret that he had heard that Dr. Coleman was going on leave and that he hoped he would come back with health renewed. He then asked Col. Crawford to address the meeting.

Col. Crawford spoke as follows :—'Mr. Chairman, Dr. Coleman and Gentlemen, we have all learnt with extreme regret and sorrow that Dr. Coleman is shortly leaving Mysore on two years' leave, and we trust that the change and rest will completely restore him to health and that he may yet see his way to return to Mysore and continue the wonderful work he has so quietly and modestly been doing for the Ryot of Mysore in particular, and for India generally. If you will bear with me I will endeavour to give you a very small idea of what he has accomplished during the seventeen years he has been in the State, the magnitude of it, and the immense benefit it has conferred on the agriculture of the country. Under Dr. Coleman new and improved varieties of ragi, sugarcane, cotton, ground-nut, silk-worm seed, etc., have been bred on the various experimental farms he has under him and distributed throughout the country.

To give but a few instances of the activities of his department and the way the work is appreciated by the ryots and what his personal influence has done, I may tell you that during this year 50,000 acres will be planted with new varieties of ragi on the various villagers' lands and at a low estimate the new varieties give as much as Rs. 10 per acre more crop than the old varieties or quite five lakhs of rupees more profit to the cultivator.

There are 6,000 acres under the new varieties of sugarcane and the average yield is not less than Rs. 100 per acre additional profit to the grower of an increase profit of six lakhs of rupees on this crop alone.

There will also be about 25,000 acres planted with the new sorts of ground-nut introduced by Dr. Coleman and this is expected and doubtless will give an additional profit to the ryot of about ten lakhs of rupees more than would have been the case with the old kinds of seed. The additional profit to the silk growers, cotton planters, paddy growers, cattle and sheep breeders who have sought the help and guidance of the Agricultural Department must be very great, to instance one example, the ravages of Kole Roga on the Areca trees, a disease discovered and studied by Dr. Coleman who was fortunately able to find a remedy for the pest, and now the Areca growers on their own initiative carry out the instructions and advice of the Agricultural Department and spray over 10,000 acres of Areca and thereby save not less than twenty lakhs of rupees of crop each year. Previous to Dr. Coleman's discovery there seemed no hope for their industry.

Dr. Coleman has not been able to do much for the coffee, cardamom and pepper planters as he has not been given the money or the staff with which to do what he would gladly have undertaken for our industries, but he has put us on the way to lessen the ravages of borer, and his spraying experiments on coffee are most encouraging : his advice on manures and manuring have been most valuable and his advice and assistance has always been at the disposal of any planter who wrote to him for advice.

In Dr. Coleman's departure we are all losing a man supreme at his job, also a man who loved his work and the people of this land, and who unstintingly gave of his best, in spite of ill health and a crushing domestic bereavement which would have broken a less indomitable character.

In conclusion, gentlemen, I say we and the people of Mysore are parting with a very true friend whom it will be impossible to replace. He has in a supreme degree Kipling's "common touch" and has endeared himself in a wonderful way with all with whom he has come into contact, from the highest to the lowest, and he is every inch a man and a scholar whose modesty and kindness are only equalled by his high sense of honour and duty.' (Loud and prolonged applause.)

Dr. Coleman replying said he felt most deeply moved by the words of his old friend Col. Crawford and by the way in which these words had been received. It was seventeen years ago that he paid his first visit to the planting districts and this visit had been to Col. Crawford's bungalow. He expressed his regret that he had not accomplished all that he could have wished to have done for the planting community both Indians and Europeans. Dr. Coleman then proceeded to explain the present position regarding the Coffee Cess and Experimental Station and asked for an expression of the Association's views on these questions. After these matters had been discussed at great length the following resolution, proposed by Major Hill and seconded by Mr. Godfrey, 'That in view of Dr. Coleman's statement in *re* the Mysore Coffee Experimental Station, this Association resolves to move and press at the Annual General Meeting of the U.P.A.S.I., that the Upasi Coffee Cess of two annas per acre be continued pending further information from Dr. Coleman and that the U.P.A.S.I., endeavour to urge the Madras Government to continue its offer of a contribution to the Coffee Station,' was put to the meeting and carried.

The following resolution, proposed from the Chair, 'That the Member of Council, representing the European Planters, take an early opportunity of interviewing the Dewan of Mysore and endeavouring to ascertain the attitude of Government towards the proposed Experimental Station for Coffee and other products in the Malnad,' was also passed.

Mr. H. Browne then proposed and Mr. Dennis seconded a resolution 'That this Association is of the opinion that a Coffee Experimental Station is absolutely necessary to combat increasing disease and to maintain the quality of East Indian coffee, and that the best possible service that could be obtained anywhere is now available in the person of Dr. Leslie Coleman whose services must be retained, and this Association is prepared to pay any reasonable cess to secure his services provided that Government is prepared to pay an equal sum for this purpose'

This resolution on being put to the meeting was lost.

The Chairman then proposed a hearty vote of thanks to Dr. Coleman, Major Hill, seconding, said that he hoped that Dr. Coleman's health was not impaired and that we should see him back again after his period of leave was over.

Mr. Newcome then proposed and Col. Crawford seconded 'That this Association places on record its appreciation of the immense benefits already conferred on the agriculturists of Mysore by the Agricultural Department under the very able guidance of Dr. Leslie Coleman and deplores and looks with profound apprehension at the possibility of his leaving his life-work in Mysore unfinished. This Association further pledges its members to support to their utmost the proposed Coffee Cess for the Coffee Experimental Station under Dr. Coleman.' *Carried unanimously.*

The following report of the Executive Committee for the period April 1 to June 28, 1925, was read :—

Meetings.—The Annual General Meeting of the Association was held on April 6, 1925. The Executive Committee met once on April 6, 1925. A meeting of the Executive Committee was called for May 21, 1925, but, owing to the unavoidably short notice given and to the absence on leave of members, a quorum was not present.

Accounts.—The balance sheets for 1923-24 and 1924-25 have been re-audited and audited respectively. There was not time for these to be printed and sent to members before this meeting.

Collection of Subscriptions.—The response to the subscription demands sent out by the Secretary has been very poor. Out of a sum of Rs. 15,867-10-0 due for the first half year only Rs. 8,462-12-0 have been received to date.

Defaulter.—There has been further correspondence in this matter with the Secretary, U.P.A.S.I., and it was decided to put this question on the agenda for discussion at this meeting.

Winding up of the North Mysore and Bababudin Associations.—This question will come up for discussion later in the meeting.

Change at the Mudigere Treasury.—At the request of four or five members a complaint was made to the Comptroller, Bangalore, regarding the shortage of change and rupees at the Mudigere Treasury. A reply has been received to the effect that the Treasury Commissioner, Kadur, has been asked to make the necessary arrangements for an adequate supply of change and rupees. The Comptroller at the same time stated that there was no reason why there should be any shortage.

Monthly notes.—These have been sent in for May and June.

Hassan Goods Shed.—It was decided to insure the shed at the rate of ten annas plus 25 per cent. This would cover the storing of a few tins of petrol but it was decided that no petrol should be stored in the shed. The insurance has now been effected.

Coffee Cess.—As decided at the Annual General Meeting the Secretary has sent out demands for this cess. Out of a total of Rs. 2,155-8-0 due, only Rs. 982-4-0 have been received.

Assessment of Bungalows for Income-tax.—A reply to the representations of this Association has been received from the Deputy Commissioner, Hassan District, to the effect that the rental value of bungalows in planting areas will be not less than Rs. 35 in the case of bungalows occupied by Managers or Superintendents and not less than Rs. 15 in the case of those occupied by Assistants.

Registration under the Mysore Societies' Regulation.—This has now been effected.

Interest on Bond.—Arrangements are being completed for the conversion into a Stock Certificate of the pro-note of Rs. 1,000 Mysore Loan held in the name of this Association.

Act XIII of 1859.—As decided at the Annual General Meeting the Coorg Planters' Association was written to with a view to fixing a date for our Committees to meet and discuss a new Act. Unfortunately this was found impossible as the Coorg Executive Committee were unable to meet. A meeting was called therefore in order to discuss the matter and formulate some ideas to put before the Member, Coorg Legislative Council. This plan, owing to the impossibility of obtaining a quorum, fell through. The Coorg Planters' Association was informed accordingly.

A letter was received from the Shevaroy Planters' Association in this connection. As it was thought that no good would come of trying to obtain the information desired by the Shevaroy Planters' Association at a time when most of our writers and maistries are absent from estates, it was decided that copies of the contents of their letter be sent to all members with a view to discussing the matter at this meeting. The Shevaroy Planters' Association was informed accordingly.

Election of Executive Committee Active Member for South Mysore.—Mr. St. John Hunt, who was elected as Active Member for South Mysore, not finding it possible to act, Mr. P. Hunt, Member-in-waiting, has been acting as active member.

S. I. P. B. Fund.—An application by a Planters' widow for a grant of Rs. 50 per mensem, which was seconded by Messrs. C. Lake and W. H. Reed, was recommended to the Committee of this Fund. The decision of the Committee has not yet been received.

E. W. FOWKE, *Chairman.*
W. L. CRAWFORD, *Member, Legislative Council.*
P. HUNT, *Member.*
C. H. GODFREY, *Member.*
E. L. POYSER, *Member.*

The Secretary answered a few questions on some of the items in the Report.

It was resolved that in future copies of the Report be laid on the table for the convenience of members.

The Report was then adopted.

Election of a New Member.—Mr. de Weck proposed and Mr. Fowke seconded that Mr. J. F. Jacobs be elected a member. *Carried.*

Accounts.—It was explained that the Balance Sheets for 1923-24 and 1924-25 had been re-audited and audited respectively, but that there had not been time in which to have them printed and circulated to members before the meeting. This would be done before the next meeting at which they would be presented for confirmation.

Report of Legislative Council Member.—Col. Crawford read his speech as under :—

‘Mr. Chairman, Gentlemen, I attended the Budget Session of the Legislative Council last week and during the debate I pointed out the necessity of more money being granted for ROADS not only for ordinary, but for special repairs.

For the latter the Kadur District has been granted Rs. 5,000 and the Hassan District Rs. 4,000 not nearly enough but something ; let us hope later on more will be provided.

There seems no hope of an early construction of the Kadur-Chikmagalur Railway. I was able to point out that the matter was not so pressing as it was inasmuch as now Kadur had an efficient bus service and that what was required was good roads to enable private enterprise to develop the necessary transport and in that way mitigate the present disability those living in Kadur now suffered under.

When the Department of Agriculture Budget was under discussion and before the cut motions proposing a reduction of about a lac and a half rupees were taken, I, as the elected member to the Board of Agriculture, asked permission to speak on the matter. As a result the cut motions were all withdrawn.’

The Chairman then proposed a vote of thanks to Col. Crawford for the very able way in which he had represented the Association on the Council. *This was carried unanimously.*

Report of the Legislative Assembly Member.—Mr. St. John Hunt being absent the Secretary read his report. ‘Mr. Chairman, Gentlemen, I attended the Meeting of the Representative Assembly at Mysore on June 5. The opening address of the Dewan, Sir A. Banerji, is laid on the table. As per instructions in the matter of the decadent state of the roads in the Kadur District, which veritably go from bad to worse, I had an interview with the Chief Engineer from whom I learnt that, over and above the Annual Repair Grant, an extra sum of Rs. 5,000 for Kadur and Rs. 4,000 for Hassan had been allotted. I read his letter concerning my representations and hope that the much-looked-for improvement will be effected and that the extra amounts allotted, will be spent on the roads, and not be allowed to lapse, which often occurs, even under annual repair grants. I have nothing further of interest to report. Budget estimate for roads in the State are as follows :—Amount budgetted for Rs. 56,000. Amount allotted Rs. 41,000. What the final sum allotted in the Legislative Council is, I am unable to say.’

Act XIII of 1859.—Correspondence with the Coorg and Shevaroy Planters' Associations was read and discussed. It was decided that the matter be allowed to drop for the present and that the Secretary inform these Associations accordingly.

It was decided, in the event of this question being brought up at the U.P.A.S.I. Annual General Meeting, what action our representatives should take.

Hassan Cemetery.—The Secretary reported the result of his interview with the Rev. Slater and Mr. Rutherford. Their opinion as to what steps should be taken was agreed to.

Election of Office-bearers.—Mr. P. Hunt was elected as Active Member for South Mysore on the Executive Committee and Mr. Newcome as Member-in-waiting.

Defaulter.—The decision taken at the last meeting was confirmed.

The Secretary was instructed to write to the other defaulter requesting payment of arrears of subscription.

Winding-up of the North Mysore and Bababudin Planters' Association.—The Secretary was instructed what to do in this matter.

South Indian Planters' Benevolent Fund.—An appeal for more support to this fund was made.

New Rule.—The Secretary was instructed to send a copy of this rule to all members and to ask them to attach it to their copy of the Memorandum and Articles of Association.

U. P. A. S. I. Sports Club.—Capt. Nixon asked for more support to this Club. It was decided that the Association should become a member.

Instructions to Delegates to U. P. A. S. I. Annual General Meeting.—(1) Major Hill proposed and Mr. Newcome seconded 'That our delegates move at the forthcoming Annual General Meeting of the U.P.A.S.I. that, either by amendments to the Articles of Association of the U.P.A.S.I. or otherwise, membership of the Executive Committee by "Departmental Representatives" be put a stop to.' *Carried.*

(2) Our representatives were instructed what action to take with reference to the election of the Member for Coffee.

(3) Mr. Godfrey proposed and Major Hill seconded, 'That this Association bring to the notice of the U.P.A.S.I. the following statement,—“when one contemplates the hard lot of the cooly mother . . . and remembers that the moment she stops work her food-supply ceases automatically”—published in the *Indian Scientific Agriculturist*, for its consideration at the Annual General Meeting in August.' *Carried.*

Date of Next Meeting.—The date of the next meeting was fixed for 13th August.

Before closing the meeting the Chairman proposed a vote of thanks to the President and members of the Kadur Club for their kindness in allowing the Association to hold its meeting in the Club.

With a vote of thanks to the Chair the meeting ended.

(Sd.) E. W. FOWKE,
Chairman.

M. A. DE WECK,
Secretary.

NOTICE

U.P.A.S.I. SPORTS CLUB

Mr. J. J. Murphy has very kindly presented a Tennis Challenge Cup and miniature cups for lady members of the planting community. The Rules of the competition are given below :—

1. The competition shall be open to all lady members of the planting community and shall take place in Ootacamund during Planters' Week.
2. It shall consist of open singles, each match to be the best of three sets.
3. The cup shall become the property of the lady who wins the competition three years in succession or four times in all.
4. A miniature cup will be presented each year to the winner.
5. In the event of any dispute arising, the matter shall be put before the Upasi Sports Club Committee whose decision shall be final.

STUART HAWKINS,

President,

U.P.A.S.I Sports Club.

LETTER TO THE EDITOR

OSSOOR ESTATE,

HASSAN,

July 13, 1925

THE EDITOR,

THE 'PLANTERS' CHRONICLE',

SIR,

In your issue of the 11th instant you write as follows :—Dr. Leslie Coleman, Director of Agriculture, Mysore State, 'is proceeding on four months' leave preparatory to retirement'.

May I venture to point out this statement fortunately for Mysore and in a large measure India generally, is inaccurate.

May I be permitted to state for the information of the very many friends Dr. Coleman has amongst your readers, that I personally saw him just before he left Mysore *en route* for Colombo and America and he then told me he was going on long leave (two years) as he has been seriously ill for a long time with the after-effects of neglected dysentery.

He told me if his health permitted he would return to his work before the expiration of the two years, and I feel quite sure I am only voicing the wish of all his friends, European and Indian, when I say we all deplore his ill health, and sincerely hope that he may speedily be restored to health, and be in a position to return to complete his life's work the extraordinary fine Agricultural Department of Mysore.

Yours, etc.,

W. L. CRAWFORD.

COMMERCIAL AND METEOROLOGICAL

I. The Rupee Exchange for the week ending July 18, 1925

Bank Selling Demand Draft on London

13th	14th	15th	16th	17th	18th
18 3/32d.	18 3/32d.	18 1/16d.	18 1/16d.	18 1/16d.	18 1/16d.

II. Summary of latest Market Reports and Prices to hand :—

(a) Some of the higher London Prices—

Highest prices realized on the London Market			Average prices obtained for tea				
Mark	Pkgs.	Price	District	Week ending June 27	January 1 to June 27, 1925	January 1 to June 27, 1924	
(1) TEA (WEEK ENDING JUNE 27)		s. d.		s. d.	s. d.	s. d.	
(a) Anamallais—			N. India.	1 3·61	1 5·52	1 5·53	
Periakaramalai ...	259	1 7½					
Pannimade ...	99	1 6½	S. India.	1 5·85	1 6·51	1 6·02	
Thoni Mudi ...	264	1 6½	Ceylon...	1 7·08	1 8·07	1 7·83	
(b) Central Travancore							
Stagbrook ...	36	1 8	Java ...	0 11·46	1 0·88	1 2·36	
Fairfield ...	78	1 6½	Sumatra.	Nil	1 4·34	1 4·20	
(c) Kanan Devans—							
Gundamallay ...	79	1 11½	Nyassa-	0 11·84	1 1·52	1 3·91	
Chokan ...	30	1 11	land.				
(d) Nilgiris—							
Nonsuch ...	154	1 8½					
Ibex Lodge ...	133	1 7½					
(e) Nilgiri-Wynaad—							
Woodbrier ...	141	1 5½					
Seaforth ...	70	1 5					
(2) No. 1 COFFEE (WEEK ENDING JULY 4)							
Cottabetta (Coorg) ...	59	139/-					
Scotforth (Shevaroy)...	24	135/-					
			Total	1 4·65	1 5·90	1 5·92	

(b) Precis of weekly reports on London Markets—

(1) *Tea.*—1/6d. approximately marked the dividing line between the lower grades in which there was considerable irregularity and prices easier by from ½d. to 1d. per lb.; and the higher grades which met with a good demand and realized previous rates.

(2) *Rubber.*—During the week there was a further drop of 366 tons in London Stocks and prices touched 3/4d. Forward prices are well maintained and for December delivery ranged just above the half crown, while contracts for delivery throughout 1926 have been made at 2/0½d.

(3) *Coffee.*—Though a good price is offered for medium to good, the market shows complete apathy to the quality now arriving and bids except at unremunerative prices simply cannot be obtained.

III. Weekly Rainfall Statement

From April 1, 1925, up to and including Saturday, July 18, 1925

Stations are arranged in order approximately south to north and those not in planting districts are shown in small capitals.

Stations	W.	P.	Total	Stations	W.	P.	Total
1. Kalthuritty.	7.75	31.77	39.52	16. Naduvattam	13.50	30.50	44.55
2. Tenmalai...	6.97	34.66	41.63	17. Coonoor ...	1.91	8.83	10.74
3. Munda-				18. Kotagiri ...	N.R.	9.18	N.R.
kayam ...	11.09	74.42	85.51	19. Ootacamund	2.82	17.15	19.97
4. Peermade...	N.R.	57.06	N.R.	20. Yercaud ...	0.98	16.06	17.04
5. Vandiperi-				21. Devala ...	N.R.	43.85	N.R.
yar ...	N.R.	N.R.	N.R.	22. Gudalur ...	10.42	29.50	39.92
6. Kalaar ...	29.92	72.04	102.86	23. CALICUT ...	N.R.	48.69	N.R.
7. Chittuvurrai	2.62	13.71	16.33	24. Kuttiyadi ...	25.56	64.68	90.24
8. BODINAIIKA-				25. Vayittiri ...	29.97	58.12	88.09
NUR ...	0.28	3.91	4.19	26. Manantodi...	25.05	36.99	62.04
9. COCHIN ...	N.R.	50.96	N.R.	27. Billigi-			
10. Mooply ...	12.56	43.54	56.10	rangans...	5.08	18.28	23.36
11. Pachaimalai	N.R.	47.79	N.R.	28. Sidapur ...	18.84	23.96	42.80
12. Mudis ...	21.45	N.R.	N.R.	29. Somwarpett	16.86	27.21	44.07
13. POLLACHIE.	3.80	6.28	10.08	30. Ballupete ...	18.67	25.91	44.58
14. Manjeri ...	23.80	38.04	61.84	31. MANGALORE.	22.31	53.48	75.79
15. Nilambur ...	23.94	25.37	49.31	32. MADRAS ...	0.94	4.32	5.26

W = During the week.

P = Previously.

N.R. = No return.

The Planters' Chronicle

Recognized as the Official Organ of the U. P. A. S. I. (Incorporated)

Managing Editor's Postal Address : POST BOX 155, MADRAS

Do. do. Registered Telegraphic Address : 'UPASI,' Madras

VOL. XX, NO. 31] SAT., AUGUST 1, 1925 [PRICE, AS. 8

CONTENTS

	PAGE		PAGE
Editorial Notes ...	533	Shevaroy Planters' Association—Extraordinary General Meeting ...	554
The Plantation Rubber Industry in the Middle East ...	535	Letters to the Editor—	
The Rubber Industry :—Its Great Imperial Value ...	537	A No. 2 Committee for the U.P.A.S.I. ...	556
General Scientific Officer's Report on Tour in Assam—(continued) ...	541	A Coffee Tote for Sale ...	556
The Coffee Market—Review, April and June, 1925 ...	550	Sports Club Representatives ...	557
District Notes—Nilgiris ...	553	The Honorary Secretary's Reply ...	558
		Commercial and Meteorological ...	559

EDITORIAL NOTES

Dr. M. O. Forster, Director of the Indian Institute of Science, Bangalore, and his staff, will be At Home to all Planters and their wives at the Institute on Tuesday, August 18, 1925, from 4.30 to 8 p.m.

The *Strait Times* in its issue of July 6 prophesies that 1925 will see neither serious scarcity nor serious over-production of rubber but a diminution of stocks just sufficient to keep the price fairly high—say not below 2s. 3d.

It estimates production from Malaya and Ceylon at 238,000 tons, from the Dutch East Indies at 208,000 tons, from miscellaneous sources at 55,000 tons ; which when added to the stocks held on December 31, 1924, by the United Kingdom (32,000 tons) and by the United States (55,000 tons) makes a total supply of 588,000 tons.

Estimates of consumption, the paper states, vary from 500,000 to 520,000 tons ; and, if the mean of 510,000 tons be taken, stocks at the end of this year should be 78,000 tons, or in other words 9,000 tons less than they were at the end of 1924.

As for the future, the chief element of uncertainty is considered to be the Dutch Indies productive power. On the one hand native tapping is so destructive that in a year or two four-fifth of the trees concerned will

Federation of British Industries in 1924 tabulated figures for over 410 companies and found that the average dividend for the period in question ranged from 4.47 per cent in Borneo, and 4.58 per cent in South India to 10.6 per cent in Ceylon, and 13.6 per cent in Malaya. Furthermore only 3.4 per cent of the total capital of Mr. Figart's selected companies was issued at a premium, and the percentage would undoubtedly have been very considerably higher if figures had been taken out for a larger number of typical estates. A higher percentage of course would mean a greater discrepancy between the dividends declared and the actual returns which investors received. Lastly none of the companies appear to have written down their capital; and a wider survey would necessarily have included some which had done so and as a consequence reduced their dividend paying power.

On the other hand, it must, in fairness to Mr. Figart, be admitted that some companies have in the past debited expenditure on opening up new lands to revenue, and that as a consequence the declared dividends were not a fair measure of those companies' earning powers; which would (had development been charged to capital) have been considerably higher than the dividends declared. This consideration, however, is but an inadequate 'set off' to the two urged above.

Supressio (albeit unintentional) veri Suggestio falsi est, and it is hoped the above few lines will prevent some at any rate from depicting the rubber retrospect in unduly roseate hues.

The book as a whole must we should think be the most comprehensive study of the rubber industry which has yet seen the light of day. Following the financial section on which we have commented above, comes a review of what might be fitly called 'Questions of the Day', and that in its turn is followed by a exhaustive study of every imaginable phase—past, present, and future—of the industry in no less than fourteen different countries in the Middle East. The volume is prefaced with some twenty-five beautiful reproductions which illustrate production from the jungle-clearing to the product-shipping stage, and concludes with thirty invaluable pages of statistics and graphs.

Space precludes our dwelling on the many interesting conclusions at which the author arrives; but two at any rate of the more pertinent are worth recording here.

He finds the average cost of production on a typical Middle East estate producing 400 lbs. per acre is 9.24 d.

	d.		d.
Upheaval of producing area	0.90	Carried over	6.26
Tapping and collection	1.50	Depreciation on buildings, etc.	0.54
Manufacturing, packing, and f.o.b. charges	1.50	Freight to consuming markets	1.00
General charges	1.80	Head Office charges	0.42
Local Export Tax	0.56	Depreciation on rubber area	1.02
Total estate expenditure	6.26	Total excluding Home Tax (in London some 2 d. per lb.)	9.24

He also estimates that the future potential output for the Middle East will pass the 600,000 tons mark by 1927 and in 1930 be about 621,000 tons.

Finally it may be mentioned that 'Truth' in its issue of July 4th premises that its next few numbers will contain a detailed review of this monumental work.

THE RUBBER INDUSTRY : ITS GREAT IMPERIAL VALUE

Mr. A. W. Still gave the following address at the Planters' Conference held at Kuala Lumpur on June 21, 1925 :—

I have chosen to speak to you to-day on the Imperial Value of the Rubber Industry because it is a phase of the general question of rubber economics very apt to be overlooked by those whose daily concern is the profit and loss accounts of particular estates. That greatest of Colonial Secretaries, Mr. Joseph Chamberlain, begged his fellow-countrymen to 'think Imperially,' and the exhortation is as necessary to-day as it has ever been—more necessary, I think, because the Imperial need of financial support from the Oversea Possessions and Dependencies of the Crown has been enormously increased by the liabilities incurred during the Great War.

The Self-Governing Dominions, Canada, Australia and South Africa, have problems of their own to face, and I doubt whether they will ever be able to spare much of their revenue for Imperial purposes. We shall be content enough, if in the future, they are as willing as they have been in the past, to stand shoulder to shoulder with us in periods of grave crisis, and if they continue to enlarge their power to supply to us what we have need to buy, and to provide friendly markets for what we have need to sell. More we cannot ask for—least of all for subsidies that would in the slightest degree hamper their natural and free development.

Position of Crown Colonies and Protectorates

The position of the Crown Colonies and Protectorates differs from that of the Self-Governing Dominions rather in degree than in principle. Not one cent goes into the Imperial Treasury as tribute from the Oversea Possessions and Protectorates of the British Crown. The Federated States may present a battleship when they think themselves affluent, and the Colony may hand over the proceeds of a war-tax in grateful acknowledgment of the security which the Imperial navy provides. These are absolutely free gifts, and wise rulers here will never suggest similar gifts unless they feel perfectly assured that it is the will of the people they should be made. The Imperial Government values the Imperial Possessions not as tax areas but as precious fields for the expression and expansion of national enterprise and upon the vigour of that enterprise all Imperial welfare depends. The gibe that the British are a nation of shopkeepers, never very true, as wholly out of date. But we are and we must continue to be a nation of traders, and we need the whole world as our market. Because we were the first to use steam, and to lay railways, and to invent machines for doing a thousand things that were formerly done by hand, Britain was labelled 'the World's Workshop' and deserved its title. Having introduced to the world 'the machinery age' and shown the almost limitless possibilities of 'mass production,' which others now claim to have originated, we are passing through a phase not inaptly compared with that of the engineer hoist with his own petard. Younger countries, richly endowed with coal and iron, and minerals of every other description, have drawn from us some of the best of our brains, and our workshops are not now as predominant as they were. Behind 'brazen walls of protection' these other nations have made amazing advances, and we cannot grudge them what they have won. It were unworthy of us to whine. Our business is to face the world as it is and to make its needs serve our own—

drawing for that purpose boldly and freely upon the vast and infinitely varied territory which it is our privilege to administer and our duty to defend.

We have not hitherto, done more than skim the surface of Imperial territory. I take a group of seven principal Crown Colonies and Protectorates, and examine their exports. They are :—

					Total exports
					£
Ceylon	...	...	...	...	24,000,000
Nigeria	...	...	...	...	11,750,000
Gold Coast	...	...	...	...	9,000,000
South Rhodesia	...	...	...	...	5,500,000
Mauritius	...	...	...	...	5,000,000
Trinidad	...	...	...	...	4,500,000
Jamaica	...	...	...	...	4,250,000
Total ...					64,000,000

In Malaya

Now turn to Malaya. The total value of Malayan exports in 1924 was £83,911,000, but I do not place this gross figure in contrast with the exports of the seven colonies just named. It is more accurate, in view of the large merchant business conducted from Singapore, and the consequent big percentage of imports for re-export, to make comparison in another manner. I take, therefore our three great produce exports, rubber, tin and copra. If Malaya were producing its standard output of rubber (256,200 tons) and were selling at the fair price of 70 cents per lb. (that is a trifle over the 1s. 6d.) it would earn £46,867,000. The value of tin exported in 1924 was roundly £19,733,000, and of copra £3,811,000, so the aggregate of our three chief produce exports should be £70,401,000, or six millions in excess of the total exports of the seven colonies I have named. The area of these seven colonies is 596,121 square miles; that of Malaya is 56,602 square miles. The value of our three great produce exports averaged over our area, equals £1,236 per square mile. If we could raise the productiveness of the seven colonies I have named to half that of Malaya, we would increase their export power by over three hundred millions sterling annually.

I do not wish, however, to confine myself to Malaya, but rather to consider the imperial value of the rubber industry as a whole. I have said that producing our standard output and selling at a fair price, the Malayan rubber industry would earn £46,867,000. If Ceylon were doing the same it would earn £12,000,000. From other British sources there would be at least £1,500,000, so we get, as the aggregate earnings of rubber grown in British territory, £60,367,000.

An Important Asset

Sixty millions sterling may not strike you as a very large sum, but it is an important trading asset. However intricately the operations of commerce may become involved, the positive and unvarying basis is simple barter. If we want to buy wheat and cotton from the United States, it is better to have control of sixty millions worth of something our American friends want than to have six hundred millions worth of what

they can produce for themselves. They have ceased to want our coal, iron, machinery, and many other things, but they still want our rubber. We take £48 millions worth of raw cotton, and £20 millions worth of wheat, and wheatmeal from them and it is an enormous trading advantage to have commodities like rubber and tin which balance these purchases.

Possibly you will grasp relative importance better if I cite a few export figures. The biggest exports by the United Kingdom are coal, £100 millions, cotton goods (less cost of raw material) £80 millions, iron and steel manufactures £76 millions, machinery £44½ millions. By comparison with these figures the export value of rubber is not small: it is growing, and there is, unfortunately, too much reason to suppose that the others are declining.

Only Twenty Years Ago

Twenty years ago the plantation rubber industry was almost unknown, and it seems to me that the history of the industry, just because it is so short and dramatic, teaches a lesson to the Empire. It shows the line along which Empire enterprise in future should be mainly directed. Every progressive country, and I include the Self-Governing Colonies, aspires to supply its own wants from its own fields, workshops and factories. The movement to this end is steady and progressive, and it is gradually destroying the manufacturing predominance of the United Kingdom. Hopes to recover that predominance are merely childish. In the future the demand for English factory products in America, South Africa, Canada and Australia, relatively to population, will be less and not greater. In the neutral markets, India, China and South America, English factories will have to compete keenly against the factories of America, Canada, and, later on, those of Australia and South Africa also. Does it mean inevitable decay of the mother-unit of the British Empire? Not, if we realize in time, that the old lines of enterprise no longer suffice for our needs, and that we must develop the great reserves which vast territory, rich in productive possibilities, place within our reach.

Critics may say that the problem is far less the making of money in the Colonies than the making of employment for the artisan population of the United Kingdom. I entirely agree, but take note of the fact that development of productive capacity in a Crown area is the surest way of making that area a unit of higher value to the factories and workshops of England. I have placed the beginning of the rubber industry on its present big scale twenty years back. Note the following figures:—

	\$
The whole trade of Malaya, import and export in 1924	
was	1,376,410,136
The whole trade of Malaya, import and export in 1905	
was	584,962,000
The increase in 1924 over 1905 is	791,448,136
Malaya imported from United Kingdom in 1924	88,947,769
" " " " 1905	35,600,000
The increase in 1924 over 1905 is	53,347,769

The Slump

That increase, in spite of all the competition of other countries, and the heavy handicap which the rubber slump has laid upon us, is remarkable. It shows the direct influence of tropical development upon the industries of the United Kingdom.

I think the Imperial Value of the Rubber industry may be thus described :—

Firstly, that it places sixty millions sterling annually of trading power at the disposal of the Empire.

Secondly, that it has demonstrated the importance of tropical Colony development to the factories and workshops of the mother country.

Thirdly, that it has been supremely good for Malaya itself to be developed.

So far I have been endeavouring to 'think Imperially,' and though I turn now to more purely local aspects of the rubber industry, it is still with the Imperial interests in view.

According to the census taken in 1921, it would appear that the total area alienated for rubber cultivation in Malaya at that date was 2,962,216 acres; the area planted was 2,226,236 acres, and the area in bearing was 1,316,831. I am afraid that these statistics, though official, have fallen under a certain amount of suspicion. At all events, in the *F. M. S. Gazette* of February 20 this year, a new set of statistics was given in reference to new planting in the years 1918—19—20—21, on estates with an area exceeding 100 acres. Comparison between the 1921 census figures and those issued in 1925 shows that in the census return the new planting on large estates was overstated by about 100,000 acres. How much it was overstated in reference to estates below 100 acres I do not know, but I think we must conclude that a higher estimate of planted area than two million acres would be unsound, and I propose therefore, to use that figure as the basis of the observations I am about to make.

The Present Area in Bearing

If, then, we take the present area in bearing at 2,000,000 acres and the average full capacity production at 350 lbs. per acre per annum, we get Malaya's possible production as 312,500 tons. Standard production (256,200) plus, say, 5,000 tons for the islands of Singapore and Penang which are outside the restriction area, is 261,200 or 51,000 tons below my estimate of full capacity production. At the present time the exportable percentage is 65, which is 166,530 tons, plus 5,000 from Singapore and Penang, plus 14,000 tons special allowance to small holders, making the total exportable equal to 185,530 per annum. This is a fraction over 59 per cent of Malaya's full capacity production, if the estimate of 350 lbs. per acre from two million acres is not an exaggeration. It means that, theoretically, we have behind our present rate of export (65 per cent of standard plus extras) a reserve equal to 127,006 tons per annum.

I wish to emphasise the latter figure. Most of you, I think, will say that in placing the full capacity production average at 350 lbs. per acre in bearing I have somewhat seriously exaggerated the possibilities. If I were

dealing with a long term, I grant freely that the estimate is high, but what I am concerned with is the six months after Restriction ends.

The point I wish to make is that since November 1, 1922, the whole of the rubber trees in Malaya have been lightly tapped and have been increasing in productive power. Can any of you say confidently what would happen if all restraints on tapping were suddenly removed? Bear in mind that labour forces will be gradually augmented as the exportable percentage is increased, and a year hence they should be capable of working the estates to their full capacity, if owners and directors decide that this shall be done. Two-thirds of the area is in Asiatic hands, and past experience does not warrant the expectation that their Post-Restriction tapping will be conservative. We may believe that the best managed European estates will realize the importance of increasing cautiously, but it is possible that, if control ceases suddenly, thousands of tons of rubber in excess of what the consumers are ready to take up will be thrown upon the market. The effect would be a sharp reaction from present hopeful conditions. Stocks would increase, prices would fall, and once again, as in 1921 and 1922, the producer would be at the mercy of the consumer.

I am responsible for a prediction that if the price average remains over 1s. 6d. per lb. until the end of July, 1926, at which date we shall be on a 95 per cent of standard basis, the Stevenson Committee will issue no orders for the ensuing quarter. I have no wish to see my prediction verified, but it may be verified if no action is taken by the industry in anticipation of the contingency I anticipate. The Stevenson Committee has to deal not only with Malaya but with Ceylon, and the basis of 'standard' is not the same in both countries.

(To be continued)

REPORT ON TOUR IN ASSAM

BY

D. G. MUNRO, B.Sc.

THE

GENERAL SCIENTIFIC OFFICER, U.P.A.S.I.—*(continued)*

Shading of nurseries, artificial and growing shade.

It is found that in most cases it undoubtedly pays to shade nurseries. Harler mentions that at Tocklai of the years 1919-23 inclusive only 1920 and 1921 had sufficient rain and a sufficiently cloudy sky for good nurseries. 1919 with two inches' rainfall up to the end of March and a rapidly rising temperature with a continuation of the drought absolutely checked nursery growth and the nurseries were such failures that they had to be hoed in. 1922 and 1923 were also bad. Shade on the nurseries not only helps soil moisture conditions but also protects the tender growth from direct sunshine. The shaded and unshaded nurseries at Bhorbetta this year bear out these statements. The shaded nursery did very well while the unshaded nursery was an absolute failure.

In planting out into clearings the practise of ball planting is generally followed, great care being taken to keep the ball of earth round the roots unbroken. The balls of earth may be extracted with a ball planting tool like a Jibbons or may be cut out with special long knives. If the tap root extends

beyond the ball it is cut off. Some planters smear the ball of earth with cow dung water before planting. The top of the plant is usually left uncut.

Experiments were tried at Tocklai in cutting the top of 2-year old plants in the nursery and planting out as ball plants when the young shoots were just appearing. Successful results were obtained. Although it is the general practice nowadays not to stump the young plants before putting out in the old days, this system was fairly common and good results were obtained just as in Southern India at the present time. Basket planting is not common.

The pits for planting are usually big $1\frac{1}{2} \times 1\frac{1}{2} \times 2$, especially where the 2-year old plants are used. Where younger plants are used, the pits are not so large and great variation in this connection is found between different estates and districts. With good soil and climate the plants may be nearly thrown in and they will grow while under less favourable conditions the young plants have to get every chance and be nursed until they get a hold.

Planting is done at varying distances from five feet square to $4 \times 3\frac{1}{2}$. The first clearings at Tocklai were planted 5×5 and they have filled in fairly well. Practically all the younger clearings however are being planted $4\frac{1}{2}$ triangular and this is supposed to be near the optimum.

In hilly districts however where wash is a very large consideration, it is possibly preferable to plant closer in order to get a good close cover of tea and so keep down jungle and weeds so avoiding the necessity for constant cultivation and preventing rain beating directly on the soil itself.

Treatment of clearings before planting varies considerably. At Tocklai and Bhorbetta where the soil is comparatively poor it is customary to treat the soil before planting. Thus the Tocklai clearance received ten maunds slaked lime, twenty tons cattle manure per acre and *Tephrosia Candida* sown broadcast and ploughed in August. Bhorbetta soils are usually treated with phosphatic manures and a green crop sown and ploughed in before planting. This, of course, is not generally done on estates where soil is comparatively good. The land is usually dug over, pits made, planted and kept clean. Owing to the shortage of labour in some places, attention is being paid to the possibilities of initial cultivation being done mechanically. In one particular estate in Sibsagar District carrying heavy grass jungle a Cletrac Tractor and double furrow Ransome board plough was used for clearing. A double furrow Oliver disc was first tried but results were not promising. A special stump jump plough from Australia is being imported for trial.

Clearing by this means can only be done on suitable land and although more expensive than doing it by cooly labour, where cooly labour is not available in sufficient numbers. It will still prove economical at present tea prices to open even by the more expensive methods.

Where plants are put out from the nursery without being cut the greater percentage in the clearing are single stemmed, just as with basket plants in Southern India and long and acrid discussions have taken place and are still taking place as to the optimum height at which the initial cut should be made and whether high or low initial cutting pays best.

9. The results of experimental work at Tocklai on this subject are given below and are of very great interest.

Pruning Experiment (Tocklai)
1913. Seed. 1914. Nursery. Transplanted, Autumn, 1916

1917 Original pruning	1918		1919		1920		1921		1922		Total
	Yield	Pruning	Yield	Pruning	Yield	Pruning	Yield	Pruning	Yield	Pruning	
Cut at 18 inches ... {	9.54	4 ins.	9.57	2 ins.	10.26	2 ins.	9.80	2 ins.	10.87	2 ins.	50.04 Assam
	8.57	4 "	8.42	2 "	9.79	2 "	7.97	2 "	9.34	2 "	44.09 China.
	8.27	4 "	9.50	2 "	10.73	2 "	11.65	2 "	10.60	2 "	50.75 Burma.
Cut at 12 inches ... {	6.87	4 "	8.67	2 "	10.34	Medium	7.68	4 "	10.03	2 "	43.59 Assam.
	7.93	4 "	7.83	2 "	9.68	pruned &	6.02	4 "	7.68	2 "	39.14 China.
	5.61	4 "	8.51	2 "	10.82	centered.	7.66	4 "	10.05	2 "	42.65 Burma.
Cut at 6 inches ...	4.86	6 "	7.81	4 "	10.78	4 ins.	8.50	2 "	12.41	2 "	44.36 Burma.
Cut at 4 inches ... {	4.76	6 "	5.62	4 "	7.29	4 "	7.44	2 "	10.68	2 "	35.79 Assam.
	4.36	6 "	5.71	4 "	5.50	4 "	8.39	2 "	10.36	2 "	34.32 Burma.
Cut at lowest branch {	4.52	6 "	5.17	4 "	6.17	4 "	7.37	2 "	10.44	2 "	33.67 Assam.
	4.56	6 "	5.14	4 "	5.44	4 "	7.50	2 "	10.64	2 "	33.28 Burma.
Cut to 2 inches ... {	4.15	6 "	4.76	4 "	6.50	4 "	6.42	2 "	10.68	2 "	32.51 Assam.
	5.37	6 "	4.79	4 "	5.44	4 "	4.86	2 "	5.93	2 "	26.39 China.
	5.17	6 "	5.02	4 "	6.16	4 "	6.68	2 "	10.00	2 "	33.03 Burma.
A Collar pruned and then pruned annually.	2.31	6 "	4.26	4 "	5.23	4 "	5.99	2 "	10.26	2 "	28.05 Assam.
	2.46	6 "	2.75	4 "	3.37	4 "	3.43	2 "	4.49	2 "	16.52 China.
	2.62	6 "	5.22	4 "	5.74	4 "	8.37	2 "	8.72	2 "	30.67 Burma.
B Collar pruned and then pruned every second year only.	2.63	Unpruned	4.18	6 "	2.80	Unpruned	5.56	4 "	3.30	Unpruned	18.57 Assam.
	2.55	"	10.23	6 "	4.71	"	8.63	4 "	4.19	"	30.31 China.
	2.13	"	6.07	6 "	4.16	"	9.25	4 "	6.22	"	27.83 Burma.
Cut at 24 ins., collar pruned in 1920. {	8.23	4 ins.	12.17	2 "	11.34	C. P.	2.21	skiffed at	9.27	6 ins.	43.22 Assam.
	8.44	4 "	12.54	2 "	11.48	C. P.	5.26	24 ins.	11.85	6 "	49.57 Burma.

Note.—All pruning is given above in 'inches of new wood left.'

These figures show that for the first five years of production the 18 inches cut shows a total advantage of from 5 maunds made tea in China to 7-8 maunds in Assam and Burma over the 12 inches' cut. Seven maunds of made tea in five years works out at about 112 pounds made tea per acre per annum. Only Burma was cut at 6 inches and has produced slightly more than the 12 inches cut staff. The lower initial cut and collar pruned plots gave still lower total yields for the 5-year period. The initial 24 inches' cut were collar pruned after the 1920 crop but up to then gave the highest yield. After the collar pruning the yield dropped, but it is now rising again.

Looking at the yields from year to year it is seen that the higher cut plots had comparatively high productions in the first three years and in the fifth year the lower cut plots have very nearly come up to the output of the higher cut plots.

The higher cut plots give high yields quickly and therefore this system of pruning is useful for putting a young estate in a strong financial position, but the shape of the bushes is such as to deter any one to act rashly in the matter. They are nearly all high and single stemmed and will have to be taken down at a much earlier age than the bushes which were originally cut lower. They show a very good spread and with careful pruning out of centres down to the first main said branches good results have been obtained on some estates. In practising this method of pruning highly efficient pruning labour and very strict supervision is necessary in order to give each bush individual attention to get the best out of it.

The medium pruned bushes, that is, those cut at 6-12 inches have all done fairly well. The bushes have a good spread and will not require such careful centering cut as the higher cut ones. The sides of the 6 inches' bushes are strong and free from fungus diseases which damage the higher cut plots.

The low-pruned bushes, that is, those cut at 4 inches and under have given a slow, but steady increase year by year. The frames of the bushes are stronger on the 4 inches' cut than the lower cut bushes. It may be noticed that after the fourth year when the bushes have attained an approximate height of 12 inches that the rate of yield increases more quickly and this may be significant as an indication of the optimum height for initial cutting. The lower-cut bushes while giving smaller yields in the first five years will certainly be much easier to handle in subsequent prunings.

On the whole 4-6 inches' pruning holds its own as a useful height for initial cutting. It may be mentioned here that owing to the shortage of labour and general conditions appertaining on the flat lands of the tea districts, mechanical intercultivation is being experimented with especially the bullock drawn spring tooth sliding cultivator. It can be easily understood that the higher the prune the less interference will there be to implements working between the rows and the 6 inches' prune while giving a good bush will also give a fair amount of freedom for implements to do the work without serious damage to the side branches of the bush.

Pruning.—The principles of pruning have been ably expounded by Hope and Carpenter in their bulletin *Some Aspects of Modern Pruning Northern India* as a district lends itself to annual pruning more than Southern India as generally there is a close season of about three months from December to March when growth practically ceases. The climate during

this period is dry and cold. Growth starts with the first rains in March and April and the amount of green leaf obtained continues to increase until about August, September when a gradual fall in crop is recorded until about November when growth again practically ceases. Leaving tea unpruned during the off-season is much more of a gamble than pruning it for if the rains are late in the spring the bush has to carry its whole weight of leaf through the dry weather and is more or less exhausted by the time the rains fall.

Below are shown figures for 1922 and 1923 for Annual (A) and Biennial (B) pruning. Results are calculated to maunds of made tea per acre.

—				—	1922	1923
Burma	...	...	...	A	13 62	...
				B	11·27	...
Kalline	...	...	...	A	12·50	12·72
				B	10·95	9·90
China	...	...	...	A	9·12	8·58
				B	8·79	8·38
Karikatia	...	...	...	A	14·31	14·70
				B	13·39	10·70
Singlo	...	...	...	A	12·21	11·77
				B	10·90	9·65
Betjan	...	...	...	A	13·00	16·00
				B	12·25	11·76
Panighat	...	...	...	A	12·42	11·99
				B	10·77	10·19
Totals	...	...	...	A	12·30	12·63
				B	11·15	10·76
Average	...	...	...	...	11·725	11·78

Average of A over B=1·15 maunds=94 pounds per acre

„ B „ A=1·87 „ =153 „ „ „

Both plots A and B were pruned at the end of 1922 and the yields of 1923 show a bigger increase of Annual over Biennial than in 1922. This is partly due to the fact that whereas growth on the annual pruned plots was from one year old wood growth on the biennial plots was from 2-year old wood and the older the wood the slower the response and the young shoots do not come away so quickly. At the end of 1923, A plots were pruned again while B plots were unpruned. The following table shows the the monthly yields for 1923 and up to August 1924:—

Months	1923		1924	
	Plot A	Plot B	Plot A	Plot B
January	...	...	...	...
February	...	...	...	...
March	...	...	9-13	389-7
April	90-0	27-3½	101-2	636-15
May	291-8	136-2½	375-2	1193-3
June	713	441-10½	828-9	1793-15
July	1575-6	1075-2½	1507-5	2591-0
August	2364	1683-14½	2065-5	3171-12
September	3241-6	2490-2½	...	...
October	4121-6	2490-2½	...	...
November	4563-10	3628-2½	...	...
December	...	...	...	...

The figures for 1924 show that with a suitable year unpruned gets such a big start at the beginning of the season that even although the crop falls away considerably towards the end of the season it will take the annual plots all their time to catch upon the B plots. It is estimated this year that the B plots will finish ahead of the A plots.

These figures bring out the fact that given favourable conditions at the beginning of the season it will pay to leave tea unpruned but it is undoubtedly a gamble on the weather and annual pruning is considered safer. The advantages of annual and biennial prunings may be compared in the following tabulated statement :—

Year	Height of pruning		Height of plucking		Probable yields on acreage tea	
	A.	B.	A.	B.	A.	B.
End of 2nd year	...	Initial cut near ground level.	...	...	...	...
3rd year	...	...	27" 27"	27" 27"	2½" 2½"	2½" 2½"
End of 3rd year	...	Unpruned or lightly skiffed.	...	...	...	...
4th year	...	...	27" 27"	27" 27"	7" 7"	7" 7"
End of 4th year	...	6" 6"	...	...	...	...
5th year	...	...	27" 27"	27" 27"	5" 5"	5" 5"
End of 5th year	...	10" unpruned or lightly skiffed.	...	...	...	...
6th year	...	...	27" 27"	27" 27"	7½" 10"	7½" 10"
End of 6th year	...	14" 10"	...	...	...	...
7th year	...	...	27" 27"	27" 27"	9"-10" 7½"	9"-10" 7½"
End of 7th year	...	16" unpruned or lightly skiffed.	...	...	...	...
8th year	...	...	27" 27"	27" 27"	11"-12" 11"-12"	11"-12" 11"-12"
End of 8th year	...	18" 14"	...	...	...	...
9th year	...	...	27" 27"	27" 27"	11"-12" 11"	11"-12" 11"
End of 9th year	...	20" unpruned or lightly skiffed.	...	...	...	...
10th year	...	...	29" 27"	29" 27"	11"-12" 12"	11"-12" 12"

Annual pruning will continue to rise by 2 inches new wood annually until a height of 30 inches is reached when heavy pruning will have to be done. About fifteen years will elapse from time of planting till this is

necessary and then it will be taken down to about 10-12 inches and then carry on again with 4 inches, 2 inches, 2 inches of new wood. With biennial pruning on this style it should take about ten years longer for it to be necessary to come down low.

Very great differences of opinion are found on the subject of collar pruning. On some estates it is the practice to collar prune up to 10 per cent of the garden annually. On others collar pruning is done as sparingly as possible. In the Dooars especially there is a consensus of opinion that collar pruning should not be lightly undertaken not only because it takes about five years to get the bush reformed and up to the original yield, but also because it is found that Mosquito Blight is worse on collar pruned and heavily pruned tea until the bushes get up again and the pruning level gets higher. This is a practical point worthy of note in Southern Indian *Helopeltis* affected areas.

Generally speaking with a high initial cut a better bush is formed by dark-leaved jats than by light-leaved jats as the former seem to have greater powers of producing new shoots from the collar than are light-leaved. It is therefore of importance with light-leaved jats in the younger stages in order to get a good spread, not to cut back any except the very 'weepiest of weepers' as long as they are in the correct position and growing in the proper direction, for these in time will strengthen and thicken up to give good side branches. The ultimate shape of the bush will depend on pruning and the style of plucking regulates the strength of the side branches as against the centre.

Plucking.—About 27 inches is reckoned to be about the optimum plucking height. In connection with the question of height of plucking an interesting point was seen on some bushes half of each bush was plucked low and half plucked high. This plucking at different levels on the same bush was originally started to find out the difference in composition of the leaf as it is generally supposed that the lower-plucked leaf gives better quality tea. The lower half was plucked at 18 inches and the higher half at 27 inches. No figures are available for actual comparison of yields of leaf from the different halves, but appearance spread and number of shoots all pointed to the higher-plucked portion giving very much more leaf than the lower-plucked. At Tocklai and in Assam generally level plucking is the rule. 6-9 inches new wood is left before tipping is done. Observations have shown that the greater the length of the shoot the stronger it is and the greater the strength of the shoot as measured by its diameter and the greater its crop-producing capacity.

This fact is of importance in the adoption of level-plucking practice. With level plucking the side shoots which grow out at an angle have to grow a greater distance than straighter growing centre shoots to come to the plucking level. Thus although growth is generally quicker in the centre, level plucking tends to force growth to the sides and to strengthen the side branches so giving a more even distribution of plucking shoots over a wider spread. Under favourable conditions level plucking to the Jannum gives very good results. Under less favourable conditions as in the Dooars and Surma Valley, a leaf is left at every plucking until about August when plucking to the Jannum is commenced. Where a leaf is left at every plucking, owing to quicker growth of the centre shoots the rounded top character soon appears and when plucking of the side

and centre shoots takes place at the same *time* and not at the same *level* there is a consequent loss of strength of the side branches. Results of experiments on plucking at Tocklai are shown below.

In some cases 6 inches of new wood was left before tipping and then plucking was done to the fish leaf and while on others a leaf was left every time and is signified by 6 inches L (leaf). In others 4 inches new growth was left and a leaf left every tipping signified by 4 inches L (leaf).

BB + means that any shoots above the plucking level were broken back while BB — means that they were left. BJ + means that Banji shoots were taken and BJ — means that they were left. Pruning was done in November and December each year and the heights were 1921, 20 inches, 1922, 22 inches, 1923, 24 inches. Yields are shown as maunds of made tea per acre.

Plucking Experiments

—		BB	BJ	1922	1923	Total for 2 years
(1)	2	...	+	10.52	10.34 10.52	20.86
	11	...	+	11.45		
	20	...	+	9.06		
(2)	3	...	+	12.74	13.34 12.59	25.93
	12	...	+	14.27		
	21	...	+	12.91		
(3)	4	...	+	8.77	8.97 9.69	18.66
	13	...	+	9.66		
	22	...	+	8.49		
(4)	5	...	+	7.98	7.76 7.74	15.50
	14	...	+	7.85		
	23	...	+	7.47		
(5)	6	...	+	9.18	9.17 9.99	19.16
	15	...	+	9.85		
	24	...	+	8.49		
(6)	7	...	+	9.78	9.82 9.72	19.54
	16	...	+	8.83		
	25	...	+	10.87		
(7)	8	...	+	9.42	9.38 8.94	18.32
	17	...	+	1.93		
	26	...	+	9.78		
(8)	9	...	+	13.01	12.80 12.05	24.85
	18	...	+	10.45		
	27	...	+	14.95		
(9)	10	...	+	12.56	12.79 13.65	26.44
	19	...	+	12.23		
	28	...	+	13.59		

From the figures it is seen that No. 9 lot which was tipped at 6 inches, Jannum and Banji shoots plucked (the weight of which is not included in the made tea figures), and long shoots broken back to plucking level gave the biggest yield over the 2-year period. The second best lot is No. 2 where 6 inches was left before tipping, Banji's taken, but no breaking back is done and plucking is to the Jannum. The lowest yield is obtained from No. 4 lot where tipping was done at 6 inches breaking back is done, no Banji shoots taken and where a leaf is left at every plucking. Over the two years there is a difference between the highest and the lowest plots of 897 pounds made tea per acre just on an average of 450 pounds per acre per annum quite a useful average crop in itself. The

lines which had a leaf left at every plucking had rounded tops with the centres getting well away up. They looked magnificent and were well wooded and it was evident that they would stand harder plucking.

The effect of leaving Bhanjies on the tree is summarized below. The jat was Burmah planted 1916, collar pruned in 1918, cut to 6 inches 1919, pruned to 21 inches in 1921 and to two fingers' new wood and thoroughly cleared out in 1922-23.

Type of plucking		Increase or decrease in maunds of made tea per acre				
		1921	1922	1923	1924	Total
6" then to Jannum	...	2.41	2.25	3.13	0.50	8.29
6" then leave a leaf	...	2.67	0.70	2.26	1.21	6.84
4" then leave a leaf	...	1.89	3.41	3.11	0.70	9.11

The effect of breaking back

Plucking		Increase or decrease in maunds of made tea per acre				
		1912	1922	1923	1924	Total
6" then to Jannum	...	0.03	0.55	1.05	0.76	1.29
4" then leave a leaf	...	0.88	1.41	0.31	1.77	0.83
6" then leave a leaf	...	0.02	2.98	2.37	0.36	5.01

Another experiment of interest is one for which the figures for 1923 are shown below where the plucking round varied from 5-12 days. The results are in maunds of made tea per acre.

No.	Plot No.	Type of plucking	Yield 1923	
1	5	2 leaves and a bud.	8.80	
2	7	Third leaf.	1.30	10.10
3	9	" "	7.19	
4	12	" "	1.56	8.75
5	9	" "	5.84	
6	12	" "	2.17	8.01
7	9	" "	6.16	
8	12	" "	2.43	8.59
9	9	2 leaves and a bud.	5.54	
10	12	3rd leaf.	1.17	
11	9	4th leaf.	0.29	7.00
12	12	" "	4.32	
13	9	" "	1.08	
14	12	" "	0.46	5.86

The yields for the year 1924 tend in the same direction as the 1923 ones. From these it is seen that the hard plucked five day round plot gave the highest yield by over 100 pounds made tea per acre.

That the heavier the plucking the greater is the strain on the bush was shown by the presence of debility diseases such as Brown and Grey Blight, Copper Blight and Red Rust, but in the above cases the total amount of disease even in the heaviest-plucked bushes was not excessive.

(To be continued)

THE COFFEE MARKET

Review for the quarter ending June 30, 1925

Messrs. Leslie and Anderson make the following comments on the season for the 1924-25 'MILD' crops now drawing to a close :—

The principal crops comprise those from Colombia, Guatemala and Venezuela (South America), Central America, East Africa, East India and Java. The largest portion of the South American crops naturally find their way to the U.S.A., but a fair portion is also shipped to European Ports. The Central American crops—Costa Rica, Salvador, etc., are marketed about equally in the U.S.A. and Europe, whilst the bulk of the East Africa and East India crops are dealt with in London for distribution in U.K. and the Continent. The Java crop—mostly Robusta—goes to Amsterdam.

The following figures indicate approximately the 1924-25 crops of 'Mild' coffees :—

BAGS		Brought forward ...		BAGS
		4,728,000		
Colombian ...	1,800,000	Jamica—Honduras, Ecua-		
Guatemala ...	575,000	dor ...	90,000	
Venezuela ...	950,000	Haiti San Domingo ...	500,000	
Mexico ...	345,000	Porto Rico ...	170,000	
Costa Rica ...	173,000	East African, all Districts.	250,000	
Salvador ...	178,000	East Indian ...	180,000	
Nicaragua ...	167,000	Netherlands (Java, etc.)...	977,000	
Carried over ...	4,728,000	Total (estimated) ...	6,895,000	

Prices have been satisfactory for all have benefitted by the holding-up policy of the Brazilians. The U.S. of America, have, as far as possible, boycotted the Brazilian growths this season, believing the Brazilians are unnecessarily inflating values. They have been paying high prices for South American Mild Coffees, with the result that these countries must have been encouraged, where possible, to extend cultivation.

The quality of the Central American Coffee has, on the whole, been above the average, so that returns must have been very satisfactory—some

of the best marks averaged fully 180/- per cwt. for their earliest shipments, while even to-day 190/- @ 200/- is being paid for the finest Bolds.

The East Africa (Kenya) coffee planters are exceptionally fortunate as regards marketing their crop—for their coffee begins to arrive here in November, several weeks before the Costa Ricas and East Indias, at the time, too, when stocks of coffee are usually at the lowest. This coffee sold around 160/- per cwt. for the Bolds for several weeks. It is appreciated by the Home Trade buyers for its strength of liquor.

The East India crops came to market this season about a fortnight earlier than usual; the first consignments attracted good competition at high prices, but the early demand was not sustained, for buyers held back, for all descriptions of coffee, until prices declined to more reasonable values in March. After Easter we had a much better market, both the Home Trade and export buyers operating freely. Subsequently the quality of arrivals fell off appreciably, and this has undoubtedly affected the demand. The later shipments have indeed been very unattractive, and to-day it is not unusual for whole catalogues to be called over at the sales, with only a few lots sold.

The delivery figures (consumption) of East Indias have been very disappointing this season—this may be due, in part to the importers, who bought coffee forward on C. F. I. terms, being unable so far to quit their holdings at a profit, holding for a better market in the Autumn. We fear these buyers of crops on C. F. I. terms have suffered serious losses this season, for, in addition to the fall in price, the quality of the later shipments has been undesirable. We say it, with regret, that East India coffee seems to be less popular than it was a few years ago—there is no gainsaying the fact that many of the old 'crack' marks have failed in the past few seasons to come up to reputation, and the bulk of the East India Coffee appears to lack the character it used to possess. Whereas in times, not so many years ago, East India Coffee held pride of place with Costa Ricas, the latter and Kenyas appear to have gained in favour.

Turning to the present situation of East Indias, and prospects for the future—we are led to expect a steady demand as soon as arrivals cease, and this is borne out to-day for we find a fair enquiry for lots withdrawn at Auctions, at prices, generally, in advance of the bids refused at the sales. After the experience of the result of their purchases on C. F. I. terms in October and November last year, we think buyers will be shy of committing themselves to the same extent again this Autumn, though there are always a few buyers who purchase for their own consumption to ensure their supplies.

We are disappointed to learn that crops in East India are, with exceptions, likely to be smaller next year than in the season now closing, owing to inopportune rains. So much depends on the level of prices which the Brazilians can maintain for their coffees during the remainder of this year it is difficult to foretell the probable values of East India Coffee for the 1925 and 1926 season. It must be borne in mind that prices this season, at first ruled higher than was expected and we can hardly look for

so high prices again—at the same time we do not look for any serious decline in values.

We quote spot prices current in London as follows :—

East India—good to ine ...	' A ' size—145/- @ 160/- per cwt.
Do. poor to medium ...	do. 120/- „ 140/- „
Costa Ricas—good to fine ...	do. 160/- „ 190/- „
Do. ordinary to medium. ...	do. 140/- „ 155/- „
Kenya—good... ..	do. 140/- „ 150/- „
Do. medium	115/- „ 130/- „
Santos Superior C. & F. ...	105/- „ „

With regard to the situation in Brazil which, in the end determines the course of coffee prices, we have to bear in mind that the economic position of the country is relatively satisfactory, for figures disclose a large trade balance—stated at £25,000,000 in that country's favour for 1924-25, largely due to the high price obtained for coffee despite the depreciated exchange. Further, the control of exports of over 50 per cent of their coffee crops is now in the hands of the San Paulo Government, who have instituted a ' Defence ' scheme, to ration the world at their own ideas of price, which is unlikely to be low so long as stocks are not excessive, as is the case at present. Their last Valorization Loan has been paid off, and we have little doubt that there Government will be able to finance the present supplies unaided, but this situation might undergo a radical change when another large Santos crop—as is now expected for 1926-27 comes along. The Rio Victoria and Bahia crops for 1925 are reported to be about 5,000,000 bags and this quantity is not under the control of the San Paulo Government—no doubt sellers will market this quantity at as high values as possible, but their sales will obviously be a check on the San Paulo (Santos) Controllers, who will have to reckon with their sales, though it must be remembered that good Santos Coffee has a preference over Rios at a premium.

In view of the high range of prices it is not surprising to find that the world figures of deliveries (consumption) have not been maintained at the full figure of 22,000,000 bags stated at June 30, 1924—the decline for the year ending June 30, 1925 is roughly estimated at 1½ million bags.

We append the estimated statistical position of supplies for the coming twelve months as follows :—

	BAGS
' BRAZIL Coffee in stock (up-country) warehouses ...	2,500,000
Do. do. Santos	2,000,000
Do. do. 1925-26 Santos crop	10,000,000
Do. do. 1925-26 Rio, etc. crop	5,000,000
' Milds ' crops (reported less than last season) ...	6,500,000
Total estimated supply for 1925-26	26,000,000

Above figures do not take into consideration supplies of coffee in America and European ports, but we know that stocks in America have been allowed to run down to a low point while supplies in Europe are about the average usually held.

To sum up, the position disclosed above clearly indicates that there will be no scarcity of coffee in 1925-26; in our opinion then present values are unwarranted, but it is scarcely a free market, seeing supplies are largely controlled by those whose interests are to maintain prices and, as already stated, we think they can do so.

DISTRICT NOTES

Nilgiris

Since our last Notes from these mountain tops, the Monsoon has been on us, and all discussions as to when it actually commenced have now ceased, and nobody has been able to fix any specific date on which the so-called 'burst' took place. We have had high winds, showery weather, delightfully sunny breaks, heavy falls; and at present we are in the midst of dense mists and light drizzles that recall memories of other days in other lands. But now our local prophets predict a deluge shortly that will bring woe to our Civic Fathers, whose ideas about drainage are said to be extremely primitive. For after every heavy rainfall the usual scene one beholds is one of bewildering destruction and general chaos. Fallen trees, blocked culverts, flooded roads, millraces everywhere, damaged electric wires, and frenzied residents cussing deep and loud the powers-that-be. Many hundreds, probably thousands, are annually spent on highly imaginative patchwork on such occasions; but hitherto no practical individual has risen in these parts to realize the futility of such methods, and the necessity for stopping further waste of public money by having once for all a properly-worked-out drainage system, such as may be seen in every well-run hill station. But local mentality is peculiar: connoting, putting the cart before the horse, holding the stick at the wrong end, cutting the branch one sits on, losing all sense of proportion, and squatting with smug complacency muttering the blessed word, 'Naliki'.

Our short Season in these hills is now practically over, and festive visitors and hard-worked officials are rapidly leaving for pastures new. Social functions in consequence are receding to vanishing point, and are now few and far between. Many complaints have been heard regarding the deplorable condition of the rented houses. Landlords blame the Municipality, and the latter blame the landlords, while neither party seems to realize that the goose is being killed that lays the golden eggs. The last excitement worthy of note was due to the energy of the Ooty Dramatic Society, which lately put on the boards the clever but tragic drama, 'Paola and Francisca'. It was admirably staged and acted with remarkable reality and technique, and the caste deserve our unstinted praise. Yet opinion prevails that sombre drama however good does not altogether appeal to the average Nilgiri playgoer, who calls for brightness and laughter rather than tragedy and tears. But as Ramaswamy remarked as he wended his way out of the theatre, 'The play was of great excitement, and I do not look the gifted horse in the mouth'.

By the way, have any of our readers ever tried whole meal bread, which is much in vogue now at Home? It is made of ordinary wheat ground to a somewhat coarse flour, without sifting anything out of it. The brown skin or husk of the grain remains, containing the vitamine elements

so essential to health. Whole meal bread is thus rich in vitamins, while the common white variety has practically none; and has very little in its favour except its attractive colour. Science has proved that the bread advocated is not only more nutritious, but on account of its rougher content is also far more digestible. But what is more to the point, it is or ought to be, cheaper in production, as the cost of fine milling, and sifting and sorting the flour is wholly eliminated. Planters should not find it difficult to grind wheat as described and make their own bread; but if there was a growing demand for whole meal bread, it is understood bakers would meet it at very favourable rates. It should be borne in mind that the slightly brownish whole meal bread is *not* just ordinary brown bread, which is practically the same as white bread coloured with burnt sugar, and has therefore the same lack of nutritive qualities.

Rumour has it that panthers (cheetas as they are dubbed here) are still continuing the Ooty season, and are nightly to be seen promenading the most public resorts. By the way, why are so many things, especially wild animals, misnamed in these parts? The leopard is called a panther, and the latter in turn is called a cheeta, one of the semi-cat tribe that does not exist so far south. The common sambur is designated an elk, which has no place in all India. A noted hill and a house are actually named after this mythical beast. The little muntjac or barking deer is generally spoken of as a jungle sheep, to which this deer is not even remotely related. The nearest wild sheep being over a thousand miles away from the Nilgiris. But why continue? the merest enumeration of such misnomers would require more space than even a sporting editor would allow. But to return to our muttons. One of these queer leopard-panther-cheetas the other night boldly walked into the local market and killed a goat in the midst of a lot of sleeping coolies. Another was seen on the Hospital Hill with a dog in her mouth and a sprightly cub trotting behind. A third was heard chasing a howling dog round a resident's house. Where are the Nilgiri Nimrods? Why wait for some plausible business excuse, when in Ooty you may bag a brace of 1-p-ers with your after-dinner cigar?

C. W. H.

SHEVAROY PLANTERS' ASSOCIATION

(INCORPORATED)

Proceedings of an Extraordinary General Meeting held at the Victoria Rooms, Vercaud on Thursday, July 23, 1925, at 2 p.m.

Members Present

Capt. E. H. A. Travers Drapes (*Chairman*), Mrs. V. I. Lechler, Messrs. W. Rahm, C. Rahm, N. M. Hight, C. L. Hight, B. A. R. Kandasamy Chettiar, C. D. Ryle, and Mr. W. A. Rahm (*Honorary Secretary*).

Agenda

1. Notice calling the meeting was taken as read.
2. Read and confirmed Proceedings of the Extraordinary General Meeting and Annual General Meeting dated May 28, 1925.

3. *To elect Delegates for the U. P. A. S. I. Annual General Meeting fixed for August 17, 1925.*

Proposed by Mr. C. Rahm, and seconded by Mr. B. A. R. Kandasamy Chettiar.

'That Capt. E. H. A. Travers Drapes be elected delegate to the U. P. A. S. I., Annual General Meeting, Bangalore,' fixed for August 17, 1925.

Proposed by Mr. C. D. Ryle and seconded by Mr. N. M. Hight

'That Mr. W. A. Rahm be elected second delegate to the U. P. A. S. I. Annual General Meeting, Bangalore, fixed for the August 17, 1925.'

4. *U. P. A. S. I. Annual General Meeting fixed for August 17, 1925.*

Instructions to delegates were given on the following subjects :—

- (a) Free Wharfage, extension of.
- (b) Labour Laws.
- (c) Office-bearers.
- (d) U. P. A. S. I. Buying Agency.
- (e) Planting Members.
- (f) Roads.

5. *Arrears of Subscription.*

Read resolutions of the Committees, dated June 26, and July 16, 1925.

The Committee's action approved.

Correspondence.

Read and recorded :

Letter dated July 21, 1925, from Chairman, N.P.A., *re* 'Free Wharfage, extension of' in reply to letter No. 69/25 of this Association.

Letter No. 2903 from Secretary, U.P.A.S.I., *re* 'Free Wharfage, extension of' in reply to letter No. 54/25 of this Association.

Read letter No. 3143, dated July 25, 1925, from Secretary, U.P.A.S.I., *re* Resolution of Mysore Planters' Association.

Read and recorded letters from Mysore Planters' Association, Coorg Planters' Association and Anamallai Planters' Association, *re* Repeal of Act XIII of 1859.

With a vote of thanks to the Chair the meeting terminated.

(Sd.) E. H. A. TRAVERS DRAPES,
Chairman.

(Sd.) W. A. RAHM,
Honorary Secretary.

LETTERS TO THE EDITOR

A No. 2 Committee for the U.P.A.S.I.

THE EDITOR,

THE 'PLANTERS' CHRONICLE',

MADRAS.

SIR,

I cannot help thinking that amongst the numbers of Superintendents and Assistant Superintendents that work on estates subscribing to the U.P.A.S.I. there must be some who have had at one time or another treatment from their seniors that they feel it not quite as fair as it ought to be.

It is true that one does not hear a great deal of complaint, but then one is not in touch with all and there must be some instances. Though it is a matter for congratulation that an outcry such as occurred in Ceylon a short while ago has not been heard over here.

At any rate, although the relations between employer and employed must be put down as very satisfactory at the present, it does not follow that such will always be the case and I therefore venture to make the suggestion that the example of the Ceylon Planters' Association be followed by the U.P.A.S.I. by forming a Number Two Committee to regulate the relations of the two sections of the planting community and prevent matters coming to a pass where some such step become imperative.

Apart from the settlement of grievances a Number Two Committee would be most useful in enabling those who have suggestions to make for the improvement of these relations to make their ideas known. For there must be many ways of co-ordinating the general methods of treatment for the benefit of all and there does not seem a better way than through an experienced strong advisory committee.

Yours, etc.

'EQUITY.'

July 24, 1925.

A Coffee Tote for Sale

THE EDITOR,

THE 'PLANTERS' CHRONICLE',

MADRAS

SIR,

I send you the following extracts from a letter received from Dr. C. H. R. Pentreath of Kaimosi, Kenya Colony, as likely to be of interest to your readers.

MADRAS,

July 26, 1925.

Yours, etc.,

H. WADDINGTON.

'I am a Doctor who wants to get back to Nairobi to his own job and is tired of coffee planting and farm life. I have 328 acres here on 999 years' lease at a rental of 65s. per annum. Altitude 5500 ft. Very fertile

coffee soil—will grow anything. Climate extremely healthy—hot in the day when sun is shining—cool otherwise—a fire at night is quite pleasant, but not really necessary. No malaria or mosquitoes. Ample rainfall and good water-supply from streams and springs. I drink the water without boiling. But the rainwater tank supplies amply for domestic purposes usually. About 100 acres is cleared land more or less and available for planting without touching the forest, which is about 230 acres in extent and full of valuable timber of some 20 varieties such as greenheart, satinwood, African mahogany and teak, etc. I have not had the farm very long so there is not much development at present. About two acres of coffee just beginning to bear and another $2\frac{1}{2}$ to 3 acres planted. Some of the 2-year old plants which were put in 13 months ago are now beginning to bear—so rapid is the growth. The soil is red coffee soil overlaid by 1 to 2 feet of of rich dark humus. Maize, tobacco, beans, peas and all European vegetables do well, also bananas of which many trees are bearing, loquats, pineapples, strawberries, etc., grow here. The railway stations are Kisumu, 30 miles and Eldorot, 46 miles, both accessible by good motor road at all times. A new road now being made will shorten the distance to Nairobi by 45 miles.

There is a 5-roomed cottage of wattle and daub with thatched roof partly covered with corrugated iron—several other bandas, grass motor shed. Posho (hand-power) mill, 800 gallons water tank—Tools, saws, axes, jembsies, forks, pangas, etc. A new stone (granite) house of three rooms—52 ft. $\times$ 20 ft. is in process of building. The site is high and well drained, dry sub-soil—good views of Mount Elgon on the north and the Nandi Escarpment on the east, looking over my forest. The farm has a frontage of $\frac{3}{4}$ mile on the main road. Ample stone and sand gravel for building available on the premises. Labour averages 8s. a month and 2 lbs. of mealie a day. Maize is bought from natives at 2s. 6d. The load of 60 lbs. sometimes cheaper. There are some pleasant neighbours not far away and horses can be kept here.

Sports Club Representatives

THE EDITOR,

THE 'PLANTERS' CHRONICLE',

MADRAS

SIR,

I was surprised to see in your issue of July 11 a notice from the Honorary Secretary of the U. P. A. S. I., Sports Club in which he says :—

'Only two districts, Central and South Travancore, have so far appointed a Sports Club Representative for the current year.' On behalf of Mundakayam District, I would invite Mr. Fulcher's attention to the following :—

(1) This Association's letter of December 23, 1924, to the President of the Sports Club informing him of the appointment of a representative,

(2) This Association's letter of December 29, 1924 also to the President confirming the above letter.

(3) The publication of the Minutes of a Quarterly General Meeting in your issue of January 3, 1925, in which this appointment is recorded.

(4) The publication of the Committee of Management Annual Report in your issue of May 23, 1925, in which Mr. Conner is thanked for undertaking this work.

(5) Finally, when Mr. Fulcher had occasion some time back to circularize representatives he addressed his letter to this Association to the Chairman, Mr. McPherson, and asked him to communicate also with the Central Travancore Planters' Association as he did not know whom to approach. The Chairman replied to this in a letter, dated June 12, 1925, in which he stated the name and address of our representative and also that of the representative for Central Travancore Planters' Association and added that he had sent copies of the circular to both these gentlemen.

Yours, etc.,

M. S. CALDER WOOD,

Honorary Secretary,

Mundakayam P. A.

MUNDAKAYAM,

TRAVANCORE, *July 18, 1925,*

The Honorary Secretary's Reply

THE EDITOR,

THE 'PLANTERS' CHRONICLE',

MADRAS.

SIR,

I have your letter of 22nd instant enclosing a copy of a letter, dated July 18, from the Honorary Secretary, Mundakayam Planters' Association.

I much regret the clerical error in the Sports Club Notice published in your issue of July 11. 'South Travancore' should have read 'Mundakayam'.

Will you please publish this in your next issue.

Yours, etc.,

G. W. FULCHER,

Honorary Secretary,

U.P.A.S.I. Sports Club.

WOODBRIAR ESTATE,

DEVARSHOLA,

July 24, 1925.

BANGALORE—CENTRAL HOTEL, 'The best in the Station'.

COMMERCIAL AND METEOROLOGICAL

I. The Rupee Exchange for the week ending July 25, 1925

Bank Selling Demand Draft on London

20th	21st	22nd	23rd	24th	25th
18 1/16d.	18 1/16d.	18 1/16d.	18 1/16d.	18 3/32d.	18 3/32d.

II. Summary of latest Market Reports and Prices to hand :—

(a) *Some of the higher London Prices—*

Highest prices realized on the London Market			Average prices obtained for tea			
Mark	Pkgs.	Price	District	Week ending June 27	January 1 to June 27, 1925	January 1 to June 27, 1924
(1) TEA (WEEK ENDING JUNE 27)		s. d.		s. d.	s. d.	s. d.
(a) <i>Anamallais—</i>						
Naduar ...	176	1 6½	N. India.	1 3·61	1 5·52	1 5·53
Pachamalai ...	35	1 6	S. India.	1 5·85	1 6·51	1 6·02
(b) <i>Central Travancore</i>						
Chengalaur ...	93	1 5½	Ceylon...	1 7·08	1 8·07	1 7·83
Pambanar ...	55	1 5½	Java ...	0 11·46	1 0·88	1 2·36
(c) <i>Kanan Devans—</i>						
Madupatty ...	26	1 11	Sumatra.	Nil	1 4·34	1 4·20
Sothuparai ...	67	1 10	Nyassa-land.	0 11·84	1 1·52	1 3·91
(d) <i>Nilgiri-Wynaad—</i>						
New Hope ...	105	1 4½				
(e) <i>South Travancore—</i>						
Poonmudi ...	119	1 3½				
(f) <i>Wynaad—</i>						
Erramaculla ...	139	1 3½				
Chulika ...	189	1 1½				
(2) No. 1 COFFEE (WEEK ENDING JULY 11)						
<i>Note.</i> —147 bags Coorg, 131 bags Mysore and 86 bags Nilgiris were offered; but all had to be bought in.						
			Total,	1 4·65	1 5·90	1 5·92

Note.—Fresh selections of prices for the week ending June 27 are given as no figures for the week ending July 4 were received by this week's mail

(b) *Precis of reports on London Markets received in Madras on 27th July.*

(1) *Tea.*—The easier tendency reported last week was no longer in evidence; there was a more general demand and prices strengthened from $\frac{1}{2}$ d. to 1d. per lb. Common, low medium broken, and especially good and fine teas were briskly bid for and the position closed very firm for the week.

There appears to be a general opinion that the market for good common tea is likely to be dearer, especially if the new season's crops are chiefly composed of the better crops.

(2) *Rubber.*—Business was done in an excited market up to $\frac{3}{7}\frac{1}{2}$ d. for Sheet and $\frac{3}{6}$ d. for Crepe. London Stocks dropped another 688 tons. It is interesting to note that in the *London Chamber of Commerce Journal* even West Indian Balata was quoted at $\frac{3}{4}\frac{1}{2}$ d. on June 19.

(3) *Coffee.*—The dullness of the market for lower grades which we reported last week was sustained and as the previous page shows even all the East Indian No. 1 offered had to be bought in. The poorer African Coffee had also to be withdrawn and only better shipments were sold.

(4) Ceylon cardamoms were quoted in London on June 26 at $\frac{8}{6}$ d. per pound.

III. Weekly Rainfall Statement

From April 1, 1925, up to and including Saturday, July 25, 1925

Stations are arranged in order approximately south to north and those not in planting districts are shown in small capitals.

Stations	W.	P.	Total	Stations	W.	P.	Total
1. Kalthuritty.	0·97	39·52	40·49	17. Coonoor ...	0·77	10·74	11·51
2. Tenmalai...	0·48	41·63	42·11	18. Kotagiri ...	1·06	10·39	11·45
3. Mundakayam.	0·72	85·51	86·23	19. Ootacamund	1·32	19·97	21·29
4. Peermade...	2·08	79·38	81·46	20. Yercaud ...	0·22	17·04	17·26
5. V'periyar ...	·39	36·05	36·44	21. Devala ...	7·28	60·19	67·47
6. Kalaar ...	3·75	102·86	106·61	22. Gudalur ...	4·45	39·92	44·37
7. Chittuvurrai	0·08	16·33	16·41	23. CALICUT	9·32	69·84	79·16
8. BODI'KANUR	0·06	4·19	4·25	24. Kuttiyadi ...	6·43	90·24	96·67
9. COCHIN ...	1·61	55·56	57·17	25. Vayittiri ...	6·30	88·09	94·39
10. Mooply ...	2·17	56·10	58·27	26. Manantodi...	4·94	62·04	66·98
11. Pachaimalai	1·71	63·97	65·68	27. Billigiris ...	1·57	23·36	24·93
12. Mudis ...	3·04	99·43	102·47	28. Sidapur ...	1·23	42·80	44·03
13. POLLACHIE.	0·72	10·08	10·80	29. Somwarpett	2·66	44·07	46·72
14. Manjeri ...	4·62	61·84	66·46	30. Ballupete ...	3·06	44·58	47·64
15. Nilambur ...	2·69	49·31	52·00	31. MANGALORE.	10·79	75·79	86·58
16. Naduvattam	3·66	44·55	48·21	32. MADRAS ...	2·32	5·26	7·58

W = During the week,

P = Previously.

The Planters' Chronicle

Recognized as the Official Organ of the U. P. A. S. I. (Incorporated)

Managing Editor's Postal Address : POST BOX 155, MADRAS

Do. do. Registered Telegraphic Address : 'UPASI,' Madras

VOL. XX, NO. 32] SAT., AUGUST 8, 1925 [PRICE, AS. 8

CONTENTS.

	PAGE		PAGE
Editorial Notes ...	561	The Rubber Shortage Fore-	
Cochin ...	563	cast ...	580
The Rubber Industry :—Its		West Coast Planters' Associa-	
Great Imperial Value—		tion—Extraordinary General	
(continued) ...	564	Meeting ...	582
General Scientific Officer's		The Dietetics of Coffee ...	584
Report on Tour in Assam—		Commercial and Meteorolo-	
(continued) ...	569	gical ...	585

EDITORIAL NOTES

The names of Messrs. J. F. Fraser, T. A. Kinmond and B. P. Tailyour were erroneously shown in the U.P.A.S.I. Sports Club Membership List (published in our issue of July 25) under Coorg instead of South Travancore. The name of Mr. H. F. deCourcy should now be added under Nilgiri-Wynaad.

Mr. Behr kindly sends us the following interesting details of the abnormal rainfall experienced by estates in the South of the Wynaad on July 13:—

Pluvius
Rampant

Pootoomulla ...	24 in.	Chulika ...	16 in.
Sentinel Rock ...	20 in.	Nellimunda.	15 in.

Even if successful, the opening up of new plantations by Firestone, Ford and Edison (who hopes to solve the labour problem by mechanical extraction of latex) in Liberia, the Phillipines, Florida, and the Dutch East Indies; and by British interests in West Africa and Guiana cannot increase the world production of rubber in the current decade. In the twenties therefore movements

tending towards the equalization of production and consumption must have their root in propositions calculated to reduce the demand. Of such, the American Rubber Association's threat of standardization of manufacture need not, we think, cause undue alarm; because it promises unquestioning fidelity on the part of the whole manufacturing trade, and that is a consummation which must necessarily prove extremely difficult if not impossible to achieve where so many and conflicting interests are involved. There remain however the possibilities of Reclamation, which are now the object of a very considerable amount of Scientific Research. The works, for example, of the North-Western Rubber Co., at Litherland, five miles from the centre of Liverpool, which occupy an area of about fifteen acres are, under the management of the experienced Mr. M. H. MacKusick, turning out reclaimed rubber for use in the Motor Trade at a cost of about 6d. per £. A pound of the compound contains about 60 per cent of rubber worth say 1-9d. and 40 per cent of compounding ingredients, worth about 2d. so that Mr. MacKusick is able to produce for 6d. per pound reclaimed matter which has a raw material value of no less than 1-11d. simply because that raw material is second hand. We understand that there is a great and increasing demand for this company's reclaimed rubber which is sold in over fifty standard grades; and we may be sure that The States also are very fully alive to the possibilities which Reclamation opens up. Indeed an official source there stated in June in this connection:—'As additional capacity in excess of £2,000,000 monthly will be available within sixty days, and as plans for a further extension are under way, it is believed that the present distressing (sic) situation will shortly be relieved.'

We have no reason to suppose that Mr. Harvey Firestone is other than scrupulously upright, but that staunch supporter of his—
Flagdra Mendace *The Indian Rubber Review* of Akron—is badly exposed in a recent issue of *Truth*. The former paper declared that as a result of expert manipulation by Mincing Lane rubber dealers the average London price for rubber for the quarter ending January 31, was exactly 1s. 5-9983d. or in other words seventeen-ten-thousandths of a penny below the figure of 1/6d. which would have increased the February to April release from 5 to 10 per cent. Doubtless deeming that even its pro-Firestone readers would appreciate some substantiation of this allegation; it details the market fluctuations for Friday, January 30, and Saturday, January 31, and finally commits itself to the statement that just before 3.30 p.m. on the latter date the price was pounded down from 1/5½d. to 1/5d. *Truth* however shows that the Mincing Lane Market closed on the 31st (being Saturday) at twelve o'clock and also points out that just before that hour 200 tons of rubber were offered, without finding a buyer, at 1/5½d. !!

Many of our readers who are patrons of the Bibby Line will be
Matters Marine inconvenienced by the appointment of Messrs. Peirce, Leslie and Co., Ltd., as Agents at Calicut, Tellicherry, Coimbatore and Mangalore. They will also be interested to learn that the enterprising Bibby brothers, encouraged by the success of the Diesel Marine Engines on their cargo boats the *Dorsetshire* and *Somersetshire*, have now contracted with the Fairfield Shipbuilding and Engineering Co., for a 10,000-ton boat driven by twin screw Diesel marine engines of 8,000 horse-power and 15 knots steady speed. The new boat, which we understand will be the pioneer of its type in the East, will be of the same general dimensions as the *Lancashire* and the *Yorkshire*, but will be able to take up to 300 first class passengers owing to greater width of beam.

We much regret that when proof reading our last issue, we did not notice that on page 550 the printer showed the Salvador *Corrigenda* Coffee Crop as 178,000 bags instead of 718,000, and on page xii the price of the *Planting Directory of Southern India* as Rs. 7 instead of Rs. 7-8-0.

We can testify to the excellence of the arrangements at Haddon Hill *Scholastic* School which is advertised on page xv, for they won the warm approval of three South Indian friends whose boys have just left it for an English Public School. Mr. Davis, the Head Master, will be pleased to send his illustrated prospectus to any of our readers in search of a thoroughly reliable school which, though domiciled in the East, adheres to the best educational traditions of the West. The teaching staff is soon to be reinforced in the person of Mr. A. N. Hutt, who is resigning the Ceylon Civil Service, and is a fine illustration of the ideal 'Mens sana in sano corpore'; for he not only won a senior classical scholarship at Cambridge and the Hulme exhibition at Oxford, but he captained the Wellington XI in 1906, 1907, 1908, played in the Oxford Varsity trials at Cricket, Soccer, and Golf, and has represented Colombo against Upcountry at these games since he arrived in Ceylon.

The Travancore Forest Department in their notes, D. Dis. No. 1393 of the 25th ultimo, authorizes with validity until January 28, 1926, the shooting of a Wild Tusker Elephant, over middle *A Tusker at Large* age, about 9 feet high, with short thick tusks about 2 feet long, a short tail, and white marks on broad forehead, which is frequenting the forests on the banks of the Periyar River in the vicinity of Neriamangalam, Pinackanchal and the Deviar Valley as far as Valarakuthu. Prospective shooters should obtain the formal commission of the D. F. O. Northern Division to enter the Forest Reserve. Tusks and teeth must be immediately handed over to the nearest forest or police officer if the animal is shot.

COCHIN

The economic possibilities of Cochin seem worth reviewing, in view of the recent sanction accorded by Government to the third or penultimate stage of the Harbour Scheme. This stage contemplates the dredging of the Harbour and its approaches sufficiently to allow twelve vessels drawing up to twenty-six feet of water to moor in stream by end of 1929; the making of 100 acres of reclamation; and the erection of residences, offices, and other contingent works. The fourth stage will provide for wharves or jetties, the extension of railways, the erection of a power house and the mechanical equipment of the port for dealing rapidly with freight.

Even now despite cumbersomeness of shipping procedure and comparative isolation from its hinterland, Cochin is the third most important port in South India; for its geographical position is unsurpassed from the point of view of trade with Europe and the East African ports, as it reduces the transport distance from India to them by several hundred miles. Its sea-borne trade from July 1923 to June 1924 was valued at over ten crores of rupees (imports 531 lakhs and exports 477 lakhs); an increase of well over half a crore on the figure for the preceding twelve months.

The products of the hinterland—tea, rubber, spice, cocoanut products and fish and vegetable oils—are in great and ever increasing demand. Great increase too in the supply may be expected with the more extended application of scientific methods to production, the expansion of the area under cultivation, and the development of water, road and rail communications with districts which (other things being equal) would make Cochin their port. To cite but two examples, Coimbatore (owing to indifferent communication with Cochin which necessitates a break of gauge at Shoranur, the negotiation of a back water at Ernakulam, and antiquated shipping arrangements at Cochin itself) ships the greater part of its produce for Europe from Madras, though doing so involves a four or five days longer voyage. Devicolum produce is sent *via* Kodaikanal to Tuticorin or *via* Pollachie and Podanur to Calicut; though as the crow flies Cochin is the nearest port. Again those areas for which Cochin as port is at present a Hobson's choice would, given better communications, probably encourage pioneer capitalists to open up the vast untouched tracts of land whose economic exploitation under the present adverse conditions is not practicable from a financial point of view.

It is interesting to note that the most largely exported commodity is the cottage industry of coir yarn. Husks are stocked for months to yield fibre which women spin into the yarn that passes *via* the petty shop-keeper who gives goods for it and the small up-country trader who gives cash for it to the big dealers on the coast.

Grains and pulse account for over 56 per cent of the imports, which comprise also cotton piece goods, oil, sugar, building and engineering materials and salt.

Mention of this commodity suggests reference to a peculiar agreement dating from the sixties, under which (in return for a subsidy payable by the British Government if the customs revenue falls below a certain amount) the Cochin Durbar are bound to see that salt is sold within its territory at a price not higher than that ruling in British Malabar. There is also a customs agreement between British India and Travancore which precludes customs duty being levied on articles shipped from Cochin or other British Indian ports if they have already been charged at Land Customs station in Travancore. Conversely for Travancore imports are charged duty at the port of arrival but exempted from any second payment at the customs stations in the State.

THE RUBBER INDUSTRY: ITS GREAT IMPERIAL VALUE—(continued)

Standard Production

I estimate that standard production in Malaya (including Singapur and Penang) will be 268,000 tons in 1926. That is 44,500 tons below the total based on an average of 350 lbs. per acre in bearing. On these figures, we shall produce in the May to July quarter of 1926, 63,650 tons—i. e., one quarter of 268,000 less 5 per cent. Suppose no order as to exportable percentage is issued for the August to October quarter of 1926 and suppose, also, that my estimate of full capacity production is accurate, and that 'all out' tapping becomes the rule. We shall in that case produce between August 1 and October 31, 1926, about 78,125 tons (i. e., one quarter of

312,500), or 14,475 tons more than in the preceding quarter. Increase might be greater or less, but at the figure I have taken it would be enough to disturb a sensitive market, and that we should endeavour to avoid. The simplest safeguard is to use the Stevenson scale, as I suggested some two years ago, above as well as below the 100 per cent of standard, until all danger of temporary over-production disappears.

I hope none of you will infer from what I have said as to the possible dangers of a sudden large release in the fourth quarter of the fourth Restriction year that I am pessimistic about the future of rubber. I am, on the contrary, a keen advocate of more planting, in order that we may have a fair chance of retaining the premier position won for the Empire by this great industry.

One disastrous effect of the slump has been the dissemination of an impression that the industry is precarious. The banks will hardly look at rubber shares as a security. The man who relies on the interest earned by his capital for his normal maintenance hesitates to place it where for a year or two it may earn nothing. Nevertheless I will venture to say that there are at present very few sounder investments than rubber. We have lived down the wild cat eccentricities of the boom period; we have enormously increased our knowledge of rubber cultivation and know better than in the past how to safeguard the capital asset, which is the plantation. Last, but not least, we have learned in part, if not completely, how to adjust supply to demand and to retain a fair price for the commodity.

World's Future Requirements

How may we forecast the world's future demands? I think for the purpose of doing so we may assume that at the end of 1924 stocks had been reduced to normal. This means that all rubber produced before that date had been consumed up to the limit required as a working reserve.

I will use Rickinsons' figures of production, and take three periods of four years each, the first ending 1916, the second 1920 and the third 1924.

In the first period the aggregate production, all grades of rubber, was 589,120 tons, an average of 147,280 tons per annum.

In the second period the production was 1,232,868 tons, an average of 308,217 tons per annum, and an increase compared with the first period of 160,937 tons per annum.

In the third period restriction, voluntary and compulsory, came into force, but the production was 1,508,075 tons, an average of 377,019 tons per annum, an increase of 68,802 tons per annum over the second period, and of 229,739 tons per annum over the first period.

I pass now from recorded facts to a forecast of two future periods of four years each. I assume that the average annual increase will be the same as in the period ending 1924, viz. 68,802 tons, and I take consumption in 1924 at 418,000 tons. On this basis the world's demand in 1928 will be for 693,208 tons, and in 1932, for 968,406 tons.

I wish very emphatically to keep the periods 1925-28 and 1929-32 absolutely distinct. There is a possibility of over-production at some point

in the four years ending 1928, but I see no possibility of that happening in the four years ending 1932.

Firstly, let us deal with the period ending 1928.

		Tons.
The world will require in 1928		693,208
		Tons.
Malaya can supply	...	313,774
Ceylon „ „	...	70,000
Other sources	...	30,000
Wild Para	...	30,000
		443,774
Leaving for Dutch Indies		249,434

Dutch Indies' Production

In the foregoing I have added to the production in Malaya from two million acres at 350 per acre, the production from recent planting at 200 lbs. per acre. The great and uncertain element is the Dutch Indies. Their dry production in 1924 was 158,000 tons so there has to be an increase of more than 90,000 tons in the next four years to make up the estimated world demand. The Dutch Indies may do less or may do more; none of us, I think, are in a position to dogmatise on this point. I think Malaya could reach the figure I have named, but will estate owners tap to full capacity? May they not find it sounder policy to harvest somewhat smaller crops by alternative day or other conservative systems of tapping? Further, I should point out that, while I have taken consumption in 1925 at 486,802 tons, some authorities place it above 500,000 tons. Also, there is a possibility that the average increase for the period 1921-24 over the period 1917-20 will be exceeded in the period 1925-28. All that can be said emphatically is that it will be wise to retain for the next four years that power of control which has enabled us to survive the great slump. There may be no need to use that power, but it will harm no one to let it stand in readiness for use if required.

I turn now to the four years ending 1932, to emphasize the statement I have made that though shortage may not come before 1928, it will most certainly come before 1932, unless a big new planting programme is taken in hand quite soon. I do not think that any reliable authority will place the world's full capacity production power from existing sources of supply at more than 700,000 tons, and that limit will be passed in 1929, even if the annual increase in rate of consumption does not rise higher than in the four years ending 1924. I calculate that

		Tons.
in the year 1929 the shortage will be	...	62,010
„ 1930	...	130,812
„ 1931	...	199,614
„ 1932	...	268,416

The figures I present to you are somewhat startling, but it is not the producer so much as the consumer who should be alarmed. The shortage in 1932 is 268,416 tons. It has to be met by new planting, and I do not think that we can safely count on an average of more than 200 lbs. per acre from each acre planted between the present date and the beginning of the year 1932—a period of six and a half years. It

will be very smart work to reach even that average and it means planting no less than 3 million acres to meet the threatened shortage. The world's needs must be met, and ultimately they will be met somehow, though there may be a period of acute scarcity if the providing of extra acreage is left entirely to private enterprise.

The Threatened Shortage

What should be the attitude of British rubber growers towards the problem? I say without hesitation that they should earnestly endeavour to do their part in meeting the threatened shortage. Some may answer, 'Why should we, since scarcity will assure us enormous profits from our present plantations?' That is not the right attitude. I have not the slightest doubt that serious scarcity would give a tremendous impetus to search for the synthetic, and even a moderate success in that search would gravely prejudice the interests of all rubber growers. Then there is the Imperial point of view. There are vast areas in the Dutch Indies suitable for rubber growing. If we hang back, I have not the least doubt that the great American consumers will take up big blocks of land in the Dutch Indies and elsewhere and plant as fast as they possibly can. This would mean that its predominant position as a rubber producer would be lost by the British Empire, and I have endeavoured to show you how important the industry is as an Imperial asset.

Further I would say that the producer of every kind of commodity owes a duty to the consumers of that commodity. When the product is food, it may be an atrocious crime to so limit production that the price gives fabulous profits; in other cases it is unjust, because it hampers human enterprise, and it is unsound because, almost inevitably it recoils upon the heads of those who have striven to gain without giving service. But the cost of planting and maturing 3,000,000 acres at £40 per acre would be £120,000,000 and it is a formidable sum to adventure. I doubt very much indeed whether there is money to that amount in the British Empire willing to lock itself up for a period of five or six years without getting any remuneration during the period. On the other hand, I believe, as I have said, that something of moral obligation rests upon us to provide against the threatened shortage in proportion to the extent of our present interest in the industry. That interest I put at no less than 50 per cent of the whole, and I think, therefore, that if 3,000,000 additional acres are required, we ought not to shrink from taking the provision of say, 1,500,000 acres on our shoulders. I venture to say that, as far as the financial part is concerned, it can be done almost easily if the Imperial Government will render the assistance which it alone, by reason of the world-wide credit it enjoys, is in a position to give.

A Great Imperial Asset

Remember that I am dealing with the rubber industry as a great Imperial asset, and that I have pointed to the importance of Imperial tropical development as the surest way of helping British factories and workshops, and enabling the Empire to bear the burden of its gigantic war debts. Simply as an Imperialist I put to forward what some of you may consider an amazing proposal. It is that a capital sum of £60,000,000 be raised as required over a period of four years, and that interest on this sum, which might be described as the Rubber Lands Development Loan, at the rate of five per cent per annum be guaranteed and paid by the Imperial

Government. I am perfectly certain that there would be a rush of subscribers to support such a loan, and that a good deal of the money would come from the United States. I am not advocating Government trading—simply Government support of industrial development. We have hundreds of the most experienced rubber planters in the world, European and Asiatic. We have hundreds of estates which could add fifty to a hundred per cent to their planted area if capital were available. I would employ the whole of these planters and estates for my scheme of development, leaving the work to be done, subject to inspection, under their skilled direction, giving them the first option of working the plantations when bearing stage was reached, charging them for this privilege a sum which would compensate the Imperial Exchequer for the burden it would bear during the non-producing period. I work out the financial results thus, the assumptions being that the average selling price will be 1s. 6d. per lb., and the royalty for tapping charged by the State 3d. per lb. :—

Area aimed at	...	...	1,500,000 acres
Capital required	...	...	£60,000,000
Interest at 5 per cent per annum	...	...	£3,000,000
Royalty for tapping rights			3d. per lb. produced.

Estimated Financial Results :—

				Government Income.	
6th year from date of planting :					
Royalty on 100 lbs. per acre at				£	
	3d. per lb.	...	...	1,875,000	
7th year	200 lbs.	"	"	...	3,750,000
8th	"	300	"	...	5,625,000
9th	"	350	"	...	6,562,500
10th	"	"	"	...	6,562,500
11th	"	"	"	...	6,562,500
12th	"	"	"	...	6,562,500
				37,500,000	
Less Interest on £60,000,000					
at 5 per cent for 12 years				...	36,000,300
Balance				...	1,500,000
Ensuing 8 years					
earn £6,562,500					
per annum				£52,500,000	
Less interest for 8					
years at £3,000,000					
per annum				£24,000,000	
				28,500,000	
Gain in 20 years				...	£30,000,000

It seems to me all important that planters and planting companies should have a big inducement to give their whole-hearted support to such a scheme as this. That support is essential if the work is to be done in Malaya, Ceylon, and possibly also in Borneo, swiftly and efficiently, and they would have their reward for service rendered in the right to first option of tapping the new areas under royalty. I take all-in cost of harvesting and manufacturing at 7d. per lb., and the royalty at 3d. making total cost 10d. As long as the selling price averaged 1/6 the profit would be 8d. per lb. On a thousand acres the profit in the sixth year would

be £3,333-6-8, in the seventh year £6,666-13-4, in the eighth year £10,000, and thereafter while output averaged 350 per acre £11,666-13-4. It is a handsome recompense for whatever support planters and estate owners gave to the scheme. You may question whether the estimated profit of £30,000,000, to the State over a period of twenty years is adequate compensation for its risk. I do not like to visualize the State as a profit grubber, and I do not think that it would be wise to let the State be closely interested in price variations. That is why I counsel a fixed royalty, at a figure which allows for very considerable price variation without any risk of injustice to the harvesting licensees.

To meet Expected Shortage

My calculation is that 3,000,000 acres are required to supply the expected shortage and I have left 1,500,000 of these acres unprovided for. I make no apology for this. We have an obligation in proportion to our present share of the industry and no more. If our greatest rival, the Dutch East Indies, fails to supply its share of the deficiency, we cannot be held answerable for that, and from the purely selfish point of view, its failure will be all to our advantage. The responsibility which I ask the Imperial Government to incur is well within its power, but I would not ask it to do so much if I were not sure that it will be very fully repaid for its guarantee of £3,000,000 annually.

I have now endeavoured to bring before your minds the great Imperial importance of the rubber industry. Imperfectly no doubt, but none the less sincerely, I have surveyed its past, discussed its present and speculated as to its future. I believe that my forecast is sufficiently accurate to warrant the somewhat novel proposals I have made and I hope these proposals will be carefully examined and vigorously criticized. There are circumstances in which abnormal methods of financing are essential. I doubt whether the great Indian Railways would ever have been built if payment of interest out of capital had not been authorized. I doubt whether Empire Cotton Growing would stand as well as it does if the Imperial Government had refused to be interested in the cotton industry. What I contend is that the rubber industry is worthy of exceptional measures also, and we shall neither do our duty to consumers nor to ourselves if we fail to seize the opportunity of expanding it as far as lies within the limits of our powers and our obligations. Your Association represents the skill and experience without which big development is impossible, and I am sure that you will not be found wanting if the Empire takes 'Forward' as its motto.

(To be continued)

REPORT ON TOUR IN ASSAM

BY

D. G. MUNRO, B.Sc.

THE

GENERAL SCIENTIFIC OFFICER, U.P.A.S.I.—(continued)

Effects of plucking and pruning

It is of the utmost importance for the health of the bush that a normal state of balance be maintained between the roots and the leaves. Even with normal soil conditions and adequate water supply the leaf becomes the

controlling factor in maintaining this balance. Plucking and pruning are unnatural and inevitably upset the normal balance to an extent varying directly as the amount of leaf and stem removed, but modified by external conditions of soil fertility, climate, cultivation manuring and by inherent hardness of jat.

The shock produced by pruning or plucking by upsetting the normal balance acts as a stimulus to renewed leaf growth which takes place after a period of recuperation and storage of energy first at the nearest growing points (axillary buds) and later at those further removed causing the bush to flush or come away.

The leaf removal has also a secondary effect. It tends to decrease the vitality of the whole plant and particularly the feeding capacity of the rootlets. These disappear and results in the eventual inability of the plant to replace food reserves which are exhausted in supplying energy for renewed leaf growth. The harder the plucking the greater the exhaustion and the quicker will the decrease in leaf production be, until the roots cease feeding and a resting self-protective or bhanji condition is reached. Bhanjiness is also caused by disease especially of roots or unfavourable external conditions and affects the lateral branches first.

Recovery from this condition of bhanjiness will depend on (1) fertility of the soil, (2) age of tea, (3) climatic conditions and (4) jat, and these factors regulate the flushing period and thus also the size and quantity of leaf which can be grown for any plucking rotation.

Bushes much weakened by continued over plucking and weak and starved bushes generally try to flower. Pruning restricts the reproductive, but stimulates the vegetative functions of the bush. Pruning is therefore the natural sequence of plucking. The main difference in effect is that while plucking only checks the natural functions temporarily pruning definitely stops them all for a considerable period and completely upsets the vital equilibrium of the plant.

Pruning besides stimulating fresh vegetative growth also aims at elimination of sources of weakness and disease and is necessary for the maintenance of strong, healthy frames and the reformation of the plucking surface in such a way as to permit of easy plucking.

The first result of pruning is that the plant tries to heal its wounds by the vigorous secretion of cell sap containing antiseptic substances as gums, resin, tannin, etc., to act as the natural protection of the cut against insect attack and fungus infection.

This is shortly followed by the production of a raised ridge or callus of actively growing young tissue which grows over the cut and forms a natural heal. Immediately below the callus large numbers of subsidiary growing joints are formed from which as also from dormant eyes lower down adventitious buds develop after the necessary recuperation period and under favourable conditions especially as regards climate, these adventitious buds develop into leaf bearing shoots.

Time of pruning.—As already shown conditions in Assam are such as to make annual pruning the rule. In Southern India 2-3 years are generally allowed between prunings. Now when comparing light-leaved

with dark-leaved bushes generally in Southern India it is noticeable that the dark-leaved bushes generally look thicker than the light-leaved and an examination will show that the difference is not necessarily in the amount of wood but in the amount of leaf that the bush carries especially lower down. Dark-leaved bushes seem to keep their leaves for a longer time than light-leaved, but in Southern India by the end of three years the wood below where it is to be pruned even on dark leaved jats has lost all its leaf. In Assam with its annual pruning about December even light-leaved jats retain some leaf below where pruning is to be done.

Carpenter in discussing pruning in connection with control of soil moisture states :—

‘ The land must be kept clean of jungle but it is also necessary to remove as many leaves as possible from the tea bushes. This is usually done by pruning. From this remark it might be deduced that all that was necessary would be to remove all leaves from the bushes when pruning, but this would not do, for the stems would then start to dry and disease would certainly attack the drying stems. It is necessary to leave a few leaves on the bushes and these leaves should be left as near the top of the stems as possible.

The best method is to prune so early that new leaves at the top of the stems on the one-year old wood are developed before the drought makes itself felt. The water available in the soil is generally sufficient for such a restricted leaf area and the growing leaves prevent the stems from drying and prevent the various diseases from seriously damaging the bushes. It is of importance to have healthy vigorous bushes. Pruning at any time and however lightly it may be done, weakens a bush.’

As already shown there are no leaves left below the pruning cut on a 2 to 3-year pruning rotation and the second alternative therefore holds with all the more force under South Indian conditions, not only because there are no leaves, but temperatures over the greater area of South Indian planting districts are higher from December onwards and also the wood is 2-3 years old as against one year old in Assam and therefore does not tend to produce shoots so readily. If pruning is done too late there is a greater amount of drying out of ends of cuts where in very hot weather innumerable small splits may be noticed which when the rain comes, offers an easy means of access for water and fungi of all sorts resulting in the formation of dead wood. Once the wood is affected the natural sequence of events for closing the cut properly is disturbed. The wound remains open and gradually may become so bad as to seriously reduce the efficiency of the bush and to give entrance to whiteants, etc. It is therefore of more importance in Southern India even than in Northern India that pruning should be done so early that new leaves at the top of the cut stems should develop before drought makes itself felt as conditions as regards temperature and sun are more strenuous. Late pruning in lower elevations in Southern India also tends to increase the amount of branch canker more especially in the older bushes where the bark is harder. Branch canker in some cases is so serious that collar pruning with its attendant lower yields for 4-5 years is the only alternative left.

Earlier pruning with protection of wounds especially the bigger ones by Bordeaux Paste against the entrance of fungi would seem to be indicated.

The paste should be applied immediately on pruning. Bordeaux and Burgundy mixtures and Pastes, are made as follows:—

Bordeaux Mixture

Copper sulphate	...	...	1 1/3 lbs.
Lime water	...	...	17 3/4 gallons.
Water to make up to	...	...	100 gallons.

Dissolve the copper sulphate separately in about one gallon of water. Put about one pound of quicklime, previously slaked, into a tub with about 25 gallons of water; stir this up and then leave it to settle. As soon as the liquid is quite clear pour off 17 3/4 gallons into the solution of copper sulphate. Add the extra water required to make the whole up to 100 gallons. As the lime water may vary a little in strength it is necessary to test the mixture to make sure that there is sufficient lime to combine with all the copper. Therefore, before adding the extra water, ladle out a little of the mixture and add one or two drops of it to a weak solution of potassium ferrocyanide in a white saucer. If there is any brown colouration it shows that there is an excess of copper. A little more lime water must then be added and the test repeated. The litmus test may also be used.

Burgundy Mixture

(2 per cent)

Copper sulphate	...	...	10 lbs.
Washing soda	...	...	12 1/2 lbs.
Water	...	...	50 gallons.

Make up exactly as in Bordeaux mixture, using soda instead of lime. The materials used should be guaranteed 98 per cent purity. Test with blue litmus paper and add more soda solution if it reddens. Excess of soda may cause scorching, and can be detected by red litmus paper turning blue, in which case more copper sulphate solution must be used.

If pastes of the above mixtures are required instead of solutions they can be readily made by merely using less water for dilution when making and then, after a very thorough stirring to ensure complete mixing of the chemicals and after allowing to settle by pouring off the clear solutions and using the residual sediment which should be very light blue in colour as a wet paste.

Tunstall suggests the following paste:—

Dissolve four pounds copper sulphate by suspending it in a bag in one gallon hot rice water, when cold add sufficient slaked to neutralize and form a paste.

Quality of the Leaf

To make good tea good leaf must be grown in the garden. The composition of the leaf varies with the year and in any one year it varies with the time of year, and the quality of tea is influenced by the soil, the jät of bush, the method of cultivation, pruning and plucking, by shading, by the weather and by manufacture.

Soil.—It is generally found that highest quality teas are grown on soils rich in phosphates and potash and good teas contain more phosphates and potash than poor teas.

Jat.—China bushes in Assam generally give poorer quality teas than either light, or dark-leaved jats. In Assam character of liquor is the most important factor in fixing the price but whereas in Darjeeling flavour is most important China holds its own. Light-leaved jats generally produce lightly better quality tea than dark-leaved.

Plucking.—The variation in tannin in the various parts of the flush are interesting. The bud contains slightly less tannin than the first leaf, hence possibly a slight loss of quality in plucking immature leaf. The first leaf however contains very distinctly more tannin than the second leaf. The tannin percentage falls off continuously as more leaves are taken, hence the falling off in quality with coarse plucking.

The small percentage of tannin in the stalk is noticeable, in the very young soft green stalk plucked with the bud and first 2 leaves. Old woody stalk would certainly contain less tannin. Stalk therefore is rightly considered as lowering quality although the reduction in price obtained for tea in which red stalk shows up is out of proportion to the lowering in quality of liquors due to the presence of stalk.

Fine plucking therefore produces better average prices since the coarser third and fourth leaves are excluded but as Mann points out the quality of the first and second leaves is not improved by not plucking more leaves. The better average price from fine plucking is only due to making less of the coarser grades with a corresponding decrease in crop.

With the same fineness of plucking however differences in the closeness of plucking do make a difference in quality. With bushes pruned to the same height better quality is obtained on plucking 2 leaves and a bud after a short growth only than on plucking 2 leaves and a bud from a longer shoot. General experience is agreed that within limits the closer the plucking the better the quality of the tea produced but if plucking is too close quality again suffers from immaturity of leaf.

The closeness of plucking has to be regulated by the state of the bushes. So long as the bush remains vigorous the closer plucking gives better quality and better yield, but the bush soon suffers if plucking is overclose.

Pruning.—It is a matter of general experience that forced rapid growth from cut back tea produces worse quality than that from ordinary top pruned tea.

The bush takes food from the soil in solution and the crude food materials have to be manufactured by the leaf into substances which the plant can use. An operation like pruning reduces the leaf area and stimulates the bush to more leaf growth. Heavy pruning produces a forced rush of growth which is 'watery' and gives poor teas. With top pruning the effect is not so obvious nor does it last such a long time.

In the case of the Tocklai plots in 1921 the 'low pruned' was giving its new shoots from 2-year old wood left practically leafless and the high pruned from one year old wood carrying some leaves. Both were plucked at 27 inches from the ground so that the low-pruned shoots were plucked 17 inches from their point of origin and the high-pruned at only 13 inches from their point of origin.

In this case the variation due to either factor alone would not be expected to be very great. Even the combined effect of the 2 factors

is small but distinct enough to show up in every case. The average of all parts of the flush from light and dark-leaved together being.

Low pruned	...	...	..	20.3 per cent tannin.
High pruned	...	...	..	21.3 ,, ,,

The difference in tannin-content is probably sufficiently great make an appreciable difference in the average price of tea.

Light.—Hope showed that there is a direct connection between the amount of light falling on the leaf and the quality of extract obtained from it. Several bushes were shaded by that so that half received natural sunshine and the other half remained in heavy shade and never received direct sunlight. After a few days the shaded leaves became darker green, more shining and the stalks were noticeably drawn out. It was found that the total soluble matter is increased by shading and the tannin noticeably reduced. Similar differences are found under and away from shade trees in the field. Shade therefore reduces the pungency of tea and while benefiting the health of the bush when used in moderation, care must be exercised in the use of shade trees as overheavy shade will lead to loss of quality.

Lack of sunshine due to clouds was shown to have a similar effect on the tannin-content of the leaf and in dull overcast weather teas lacking in pungency are produced.

Manuring.—Increases in crop are most easily produced by the use of nitrogenous manures. It is an observed fact that other things being equal the more rapid growth induced by such manuring produces a lowering of quality. Bigger crops can however be produced without increasing the rate of growth by increasing the vigour of the bush so that it will support a larger number of shoots and will allow of closer plucking.

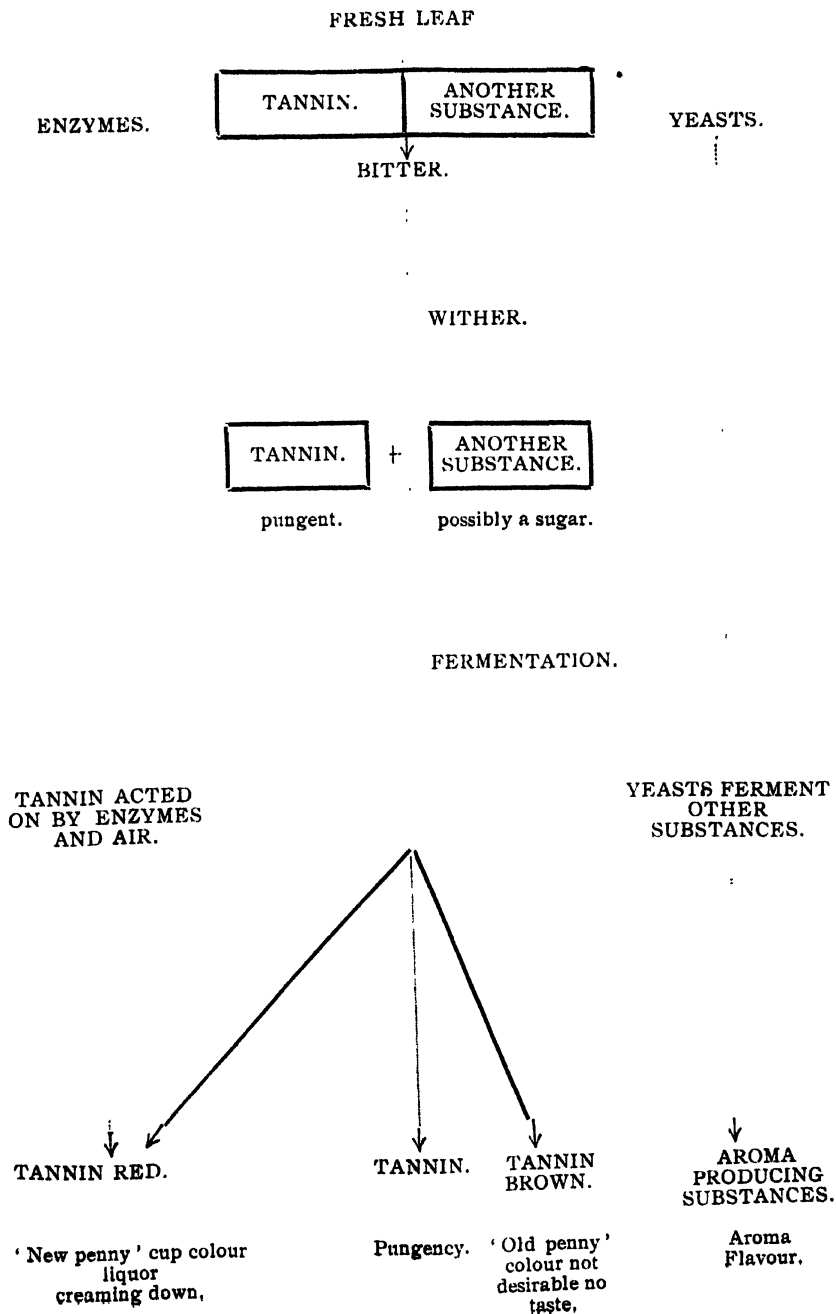
Provided that manures are well balanced there does not seem to be any fear of noticeable loss in quality from manuring.

Manufacture.—The characteristics and qualities of tea infusion not only varies with the quality of the leaf but also with districts, seasons of the year and actual manufacture.

In Assam for instance, good liquoring teas are aimed at but towards the end of the season when the weather gets cooler, 'Autumnal' flavour is also found. The very high-priced Darjeeling teas depend on flavour to fetch the higher prices and when during certain times of the year when flavour is lacking only very ordinary prices are obtained. Variations similar to these are also found in South Indian Tea Districts.

The most important substance in the tea leaf is tannin. The tannin is only one of the large number of different tannins to be found in nearly every plant all having the power of hardening skins and hides thereby turning them into leather. Tannins also have a strongly astringent or pungent taste and it is the tannin in tea that gives the characteristic bite to tea liquors. The tannin is not only responsible for taste but also for colour. Compounds occur during the withering and fermentation which give the golden red and brown colours to tea liquors and is also probably responsible for the 'creaming down' of tea.

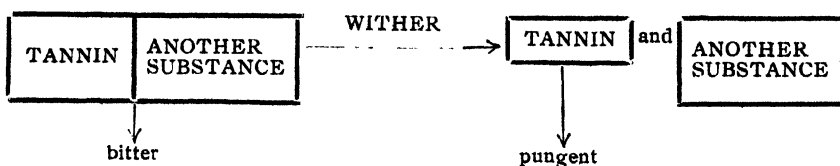
A summary of the changes taking place during manufacture may be shown as follows:—



Withering.—Fresh leaf when boiled up with water will give a clear pale green colour without any trace of red or brown colouration. The taste is *bitter* but not *pungent*.

Withered leaf when boiled with water give a *golden coloured liquor* with a *very pungent* taste.

Thus the leaf during withering has not merely lost water and dried up, but has also changed. The greater the wither the deeper the colour and more pungent is the liquor. There has, however, been no loss or gain in tannin but simply a change in form. In the fresh leaf tannin is linked together with another substance probably a sugar. During withering these two are separated and the true pungent taste of the tannin itself can be detected.



Withering therefore is a process for reducing the vitality of the leaf to such an extent as to bring about the chemical reactions and time must be allowed for these actions to take place.

To get a proper wither leaf should be spread thinly and where fans are used they should be used at the beginning of the withering period in order to dry the leaf and reduce the vitality to allow of the chemical actions taking place.

If the rate of drying is too slow the leaf will not loose vitality sufficiently rapidly and if too rapid there will not be sufficient time for the hydrolyzing enzyme to do its work.

In properly withered leaf then the coloured should still be green but on holding it up to the light a certain amount of browning should appear particularly in the ribs and the leaf must retain sufficient water to be still soft. A golden coloured infusion should be obtained.

Rolling.—Rolling not only finishes the withering process by effecting a still further reduction in vitality and by damaging and breaking the cells, but also exposes the sap to the air. The effect of this is to render more active the oxidizing enzyme which cause the formation of the coloured compounds.

The sap is squeezed out of the broken and damaged cells and spread over the surface of the leaves and after this point micro organisms can very materially affect the condition of the leaf. If undesirable bacteria are present in large numbers undesirable products may be obtained. Desirable organisms will also begin to act.

The time of rolling varies considerably. Usually the first roll a light one of about 15 minutes after which it is passed through the roll breaker and the fine bulk put direct on the fermenting floor. The coarse bulk is again rolled usually with pressure in order to break up the cells as evenly

as possible. A third roll may or may not be given. In some case the third roll, a short one of ten minutes is given after fermentation and just before firing. It is said to improve appearance.

Rollers travel about 70-75 revolutions per minute. In Darjeeling they usually are slightly slower—65-70. In Southern India the usual rate of travel is 40-45 revolutions per minute with a consequent longer rolling period and a greater number of rolls. With the second short quick and moving roll under pressure in Northern India especially towards the end of the season it was noticeable that if stalk were present it was practically all skinned and the bright red coloured stalk in the tea certainly do not improve its appearance ; unskinned stalk is not really so apparent.

Of the organisms active during the rolling period Java scientists came to the conclusion that while moulds and bacteria were harmful, yeasts while not harmful did no apparent good. Investigations at Tocklai show that some of the bacteria investigated gave characteristic taints to tea. One of these was responsible for a taint resembling over-firing.

Experiments showed that among the organisms present on fresh leaf, withered leaf and fermenting leaf at the beginning and end of fermentation yeasts predominated on the leaf and gradually increased in number until the maximum was reached when fermentation was complete.

The aroma produced by fermenting leaf varies from garden to garden and it was found possible by the use of yeast from a particular factory to reproduce the aroma characterization of fermenting leaf in that factory in another factory on a different class of leaf in another district.

In many cases at the commencement of the experiments the aroma obtained in the fermenting room was not retained after drying. By improvements in the methods of cultivating the yeast it was found possible to obtain better results and the aroma was retained by the tea after drying. Not only has it been proved possible to change the aroma, but also to change the flavour permanently.

Every planter knows that the quality of tea varies with the time of year. Observations of the micro-organisms present on the leaf at different times of the year show that the quantity of the yeast on the fresh leaf is at its maximum when the best quality tea is being made. During the rains most of the yeasts are washed off the leaf. It has also been discovered that the yeast present when the best quality tea is being made is more active than that found at other times of the year. Yeasts were isolated from a number of gardens when best quality was being made and the cultures stored. When the quality was no longer apparent the leaf was artificially inoculated with these yeasts with beneficial results. So far it has not been found possible to improve flavour when first class tea is being made. It was found that yeasts were naturally present in large numbers at that time and the addition of pure cultures had no apparent effect.

It must not be assumed that by the use of pure yeasts it is possible to make Darjeeling tea in districts less favourably situated. Flavour and aroma alone are not the criterion of price. The yeast undoubtedly influences flavour and aroma, but it cannot put pungency and strength into leaf which does not already possess it. Neither can it alter appearance. So far it has not been possible to obtain anything approaching the amount

of flavour in a first class Darjeeling or Upper Assam tea on tea of other districts. The yeast is only able to act on the substances present in the leaf and is merely an agent which is able under proper management to make the most of the substances on which it works.

If a good wither cannot be obtained and an expressor is used, the juice after expression should not be kept till the leaf from which it was expressed is ready for firing but may be used by putting on leaf which is just ready for firing.

Analyses for total solids and tannin in expressed juice are as follows :—

Sample.—Kutchia leaf (19 hours).

Tannin	...	...	0.257	pounds	per	gallon.
Total solids	...	...	0.96	"	"	"

Sample.—10 anna wither (20 hours).

Tannin	...	...	0.294	"	"	"
Total solids	...	...	1.25	"	"	"

Sample.—14 anna wither (19 hours).

Tannin	...	...	0.35	"	"	"
Total solids	...	...	1.41	"	"	"

Thus the richness of the expressed liquor increases with the completeness of the wither.

Taking the highest value 1.41 pounds total solids and assuming that a maund of leaf yields $\frac{3}{4}$ gallon juice and makes 32 pounds made tea (assuming that the leaf before rolling contains 60 per cent moisture) then the loss per 32 pounds tea will be 1.05 pounds or just over 3 per cent.

With Kutchia leaf assuming the moisture content of the leaf before rolling to be 75 per cent, the loss would be 3.6 per cent.

Fermentation.—In the fermentation process which starts with the rolling, several things happen to the tannin.

(1) The production of pungent tannin goes on to some extent and in this way fermentation is a continuation of the withering process.

(2) The leaf is exposed to the oxygen of the air. Tannin takes up this oxygen, but in so doing it loses its pungency and turns to a brown tasteless substance called 'Tannin Brown' which in large quantity is not desirable, but in small quantity helps to give 'colour' and thickness to the liquor. To prevent too much tannin brown the air supply should be restricted.

(3) During fermentation two new factors come into play.

(a) Enzymatic action which oxidises tannin into Tannin Red 'New penny' colour and Tannin brown 'old penny' colour.

(b) Yeast action which acts on substances other than tannin to give aroma and flavour—the 'nose' of fermenting tea.

Under certain conditions fermentation may be completed in the rollers. The temperature inside the rollers should therefore be as near the optimum for fermentation as possible. During rolling the temperature rises especially if pressure is used and this is the great objection to the system by which the leaf is kept in the roller for nearly the whole of the fermentation time.

The system under which the leaf is rolled several times removed and sifted between each roll is better from this point of view as the leaf is allowed to cool. On the other hand, continuous rolling has advantages. Undue pressure may be avoided and the rolling still be thorough. The leaf also is kept stirred so that no part becomes more oxidized than another and dangers of draughts and excess of air are avoided.

The time required for fermentation largely depends on temperature. Fermenting leaf should be kept about 82-84°F., but good results are obtained down to 75°F. if the time of fermentation is increased. Temperature can be controlled to a certain extent by the depth of spreading on the fermenting floor. If the temperature goes too high the spread is too thick which means that most of the leaf is getting too little air and enzymes and yeasts are not getting sufficient air to function properly and the leaf remains green and without aroma. Also the heat causes the tannin to combine with other parts of the leaf and pungency is lost.

If the leaf has been spread too thinly and is receiving too much air the tannin is being changed to tannin brown which gives less pungent liquors. Even with fermentation proceeding properly some tannin is necessarily lost, for example, the leaf on the surface of the spread and for this reason fermentation should not be unduly prolonged.

The best test for complete fermentation is aroma and the best time to stop is at the beginning of the 'first aroma'. Colour is a useful indication. The ideal is a bright coppery colour, but if through uneven withering or rolling some parts have escaped sufficient reduction in vitality and are still green, then the bulk of the leaf will be spoilt before the last green patch has gone. A better balanced liquor is obtained by stopping fermentation whilst the greater part of the leaf is bright red rather than by waiting till too much brown colour appears.

Firing.—The object of firing is to stop the further actions of the enzymes and the yeasts and to destroy them and to preserve as far as possible the results of their work. The best temperature for firing is obtained when the exhaust gases are about 120° F. when they issue from the dryer.

The chief loss sustained during firing is that part of the leaf which vapourizes with the moisture at dryer temperature. It consists of volatile oils which have a pleasant and desirable aroma. A slight loss in tannin also occurs. Occasionally a white incrustation is noticed on the metal parts round the exhaust. This is due to another tea constituent caffeine which has a better taste.

The critical period in firing is during the first 8 annas drying and the temperature must be carefully regulated during this period. The first firing is completed when the leaf is 12-14 annas. The second firing to remove the remainder of the moisture is carried out at a lower temperature.

D. G. MUNRO,
General Scientific Officer,
U.P.A.S.I.

THE RUBBER SHORTAGE FORECAST OF

Mr. A. W. STILL

The Basis of Computation

We reproduce the following article, written for *The Straits Budget* by Mr. A. W. Still—whose interesting address to the Planters' Conference at Kuala Lumpur is reproduced in this issue and our previous one—since it supplements the speech in question in a very informative way :—

The usual way of forecasting consumption of rubber is to add 10 per cent to the previous year's consumption, if that year has been anything like normal. In my address at Kuala Lumpur recently, I took a fixed figure representing the average annual increase in the period 1921-24 over the period 1917-20. That figure was 68,802 tons and a good many people seem to think it extravagant. According to Rickinson, in 1924 was 418,000 tons, and forecasts for 1925 range between 500,000 and 520,000 tons. Adding 68,802 to 418,000 I got 486,802, as the consumption for 1925—obviously a cautious figure as it is 23,198 below the mean of the recognized estimates. 'Well,' say the critics, 'it may be cautious for 1925, but how about the later years?' That is a perfectly fair question, and if time had permitted I might have given a more detailed explanation of my preference for 68,802 over the generally accepted view that each succeeding year shows a 10 per cent increase on the total of the year before. My chief reasons were that production and consumption in the slump years was erratic, and that the 10 per cent system gives an increasing annual increase, whereas I am of opinion that the percentage of increase will tend to decline in the later years of a long period. A declining percentage of increase was obtained by taking the fixed figure, and as a precaution basing it on a lower consumption in 1925 than the estimates. The two systems may be illustrated as under, taking for the 10 per cent basis the mean of the 1925 estimates :—

CONSUMPTION

Still's fixed increase.			Ten per cent increase.		
1925	...	486,802	1925	...	510,000
Add		68,802	Add 10 per cent		51,000
1926	...	555,604	1926	...	561,000
Add		68,802	Add 10 per cent		56,100
1927	...	624,406	1927	...	617,100
Add		68,802	Add 10 per cent		61,710
1928	...	693,208	1928	...	678,810
Add		68,802	Add 10 per cent		67,881
1929	...	762,010	1929	...	746,691
Add		68,802	Add 10 per cent		74,669
1930	...	830,812	1930	...	821,360
Add		68,802	Add 10 per cent		82,136
1931	...	899,614	1931	...	903,496
Add		68,802	Add 10 per cent		90,349
1932	...	968,416	1932	...	993,845

In the aggregate, the difference between the two methods is trivial, Still's total being 11,883 tons less than on the 10 per cent basis.

A much more important question than whether one of these methods is better than the other, is the date at which the rate of increase will begin to show a tendency to decline. It is quite possible that nobody will ever be able to answer that question. Having regard to the fact that old plantations tend to decrease in productiveness, and that a strong belief prevails that very heavy tapping causes disease, I think my estimate of 700,000 tons as highest possible production from existing sources will be found fairly accurate, and six years is the least period within which new planting can contribute to the world's needs, if these needs increase as anticipated. My only qualifying observation is that hard Para may increase in response to scarcity prices, and almost certainly shortage will be met by a much larger use of remade rubber. When I say it is possible that nobody will ever be able to tell when the rate of consumption increase begins to show a tendency to decline, I mean that, in all probability, failure of production to equal the power of consumption will bring about a decline prematurely.

I have advocated in view of that danger, bold extensions of planted areas, and this is not in the very least inconsistent with past advocacy of restriction. The basis of all sound business policy is adaptation of supply to demand. If supply exceeds demand, consumers are masters of the situation and can squeeze the producer mercilessly. We had pretty conclusive evidence of that during the slump. If, on the other hand, supply falls seriously below demand, the producer is debauched by unwholesomely high profits, management becomes slack, costs are allowed to increase needlessly,—all these conditions tending to cripple the industry when it has to face a reaction.

Price is running too high at present and the balloon tyre boom is largely responsible for this; but personally I do not think that it will last very long. If we had abundant indigenous labour there might be some excuse for urging a relaxation of the Stevenson Scale, say, by authorizing 85 per cent export of standard instead of 75 as from August 1. But we have to recruit and import our labour and that takes time, and if an abnormal release were made, acute competition for labour would most certainly follow, and in all probability it would not be good either for the labour or for the plantations.

I have reason to believe, however, that certain stocks are held, by dealers and on estates. These might be released to ease the market during the next few months, but if it is done it should be under the control of a central selling agency which would consider each case on its merits, and part first with the rubber which has been longest in store. In connexion with this I may restate my estimate of the present year's position.

Estimated production, 1925

						Tons
Malaya	...	...	...	...	..	194,000
Ceylon	...	...	...	...	...	44,000
Dutch Indies (dry)	...	...	...	...	...	208,000
All other sources	...	...	...	...	...	55,000
						501,000

			Tons
	Carried forward	...	501,000
Stocks, United Kingdom, December 31, 1924	...	...	32,000
Stocks, United States, December 31, 1924	...	...	55,000
Total available	...	...	588,000
Estimated consumption 1925 (mean)	...	...	510,000
Stocks, December 31, 1925	...	...	78,000

If these forecasts are accurate they mean that production during the year will be 9,000 tons less than consumption, which is 92,000 tons, or 22½ per cent more than the consumption in 1924.

It should be remembered that we began the year on restriction at the drastic figure of 50 per cent owing to the low prices current twelve months ago. After making allowance for increased percentages, and for the raising of the standard in the last two months, the half years compare as follows :—

<i>January to June—</i>						<i>Production</i>
						Tons
Malaya	...	...	...	...	...	82,656
Ceylon	...	...	...	...	...	20,000
Total						102,656
<i>July to December—</i>						
Malaya	...	...	...	...	...	109,455
Ceylon	...	...	...	...	...	24,000
Total						133,455

So the increase in the second half of the year will be 30,799 tons from the restriction areas alone, and we must reckon with a fairly substantial increase from other sources. It is a reasonable assumption that the market situation in the second half will tend to be easier than in the first.

WEST COAST PLANTERS' ASSOCIATION

(INCORPORATED)

Minutes of an Extraordinary General Meeting held at the Cochin Club, Cochin, on Saturday, July 18, 1925, at 11 a.m.

Present

Mr. H. J. Walmesley (*Chairman*), Major C. H. Brock, O. B. E. (*Director of Labour Department*), Messrs. H. R. Garson Parker, H. C. Leslie, C. A. R. Park (*Messrs. Harrisons & Crosfield, Ltd.*), J. K. Kirkbride (*Messrs. Peirce Leslie & Co., Ltd.*), E. Le Fevee (*Messrs. Aspinwall & Co., Ltd.*), C. E. M. Browne (*Honorary Secretary*).

Visitors

Messrs. H. D. Patch (*The Madura Co., Ltd.*) and J. B. Davidson.

1. The Minutes of the Annual General Meeting held at Calicut on April 18 were read and confirmed.

2. *Savings Bank Account.*—It was proposed from the chair and seconded by Mr. C. E. M. Browne that the Savings Bank Account with the Imperial Bank of India, Ltd., Calicut, be closed and a current account be opened in Calicut with the balance at present in the Savings Bank Account. *Carried unanimously.*

3. *Roads and Communications.*—Read letter from the Collector of Malabar regarding resolutions passed at the Annual General Meeting. It was resolved that the Honorary Secretary be instructed to write to the Collector of Malabar to thank him for his letter and express the appreciation of the Association for his having taken the matters referred to up.

4. *United Planters' Association's Annual General Meeting.*—The agenda of the United Planters' Association Annual General Meeting to be held in August were discussed in detail and delegates instructed.

5. *Election of Delegates.*—It was proposed by Mr. Carson Parker and seconded by Mr. J. K. Kirkbride that only one delegate be sent to Bangalore and that the usual travelling allowance of Rs. 300 be increased to Rs. 500. This resolution was lost. The following delegates were elected: Messrs. H. C. Leslie and C. E. M. Browne.

6. *Executive Committee Member for Rubber.*—Letter from the Chairman, South Indian Branch of the Rubber Growers' Association, was read and discussed. The meeting was not in favour of making a definite rule that several rubber associations should in turn provide a member for the Executive Committee and a member-in-waiting. The delegates were instructed to discuss the matter in Bangalore with the representatives of other rubber planting associations.

The Honorary Secretary was instructed to write to Messrs. Lescher and Fitchett and ask them whether they would be willing to serve on the Executive Committee.

7. *Labour Matters.*—The matter of restriction of recruiting in the Mooply area was taken up and Major Brock was good enough to give the members of the Association information on several points. It was decided to request that the following area be closed to outside recruiting:—

Area

From Maravattichal to Kallur—from Kallur to the junction of Palapilly road with the Cochin State main road—from this point along main road to the junction of this road and the Mattathur road—from this point along the Mattathur road to Vellikulangara—from Vellikulangara to the Mooply Tramway Station from the Mooply Tramway Station to Kallichitra—from Kallichitra to Maravattichal.

8. *South Indian Planters' Benevolent Fund.*—The Honorary Secretary informed the Association of the membership and sums received.

Life-members	5
Subscriptions paid: 16 members	Rs. 250
Non-members	5

The Honorary Secretary stated that all non-members had been circularized and all members who had not paid up their subscriptions had been asked to do so. Life-members were also to be circularized.

9. *United Planters' Association's Sports Club.*—It was proposed from the chair and carried unanimously that the Honorary Secretary be

representative for the Sports Club and he was instructed to circularize members *re* joining.

Next Meeting.—It was decided that the next meeting be held at the Mooply Valley Club in October.

A vote of thanks was proposed from the chair to Major Brock for being so good as to attend the meeting and for his valuable assistance. *Carried unanimously.*

The meeting terminated with a vote of thanks to the Chair and to the Cochinchina Club for the use of the room.

C. E. M. BROWNE,
Honorary Secretary.

H. WALMESLEY,
Chairman.

THE DIETETICS OF COFFEE

Coffee is not harmful as a drink. Such according to 'The Commercial Report of Brazil' was the conclusion reached by Professor Samuel C. Prescott of the Massachusetts Institute of Technology, after researches over a period of three years, made at the cost of 40,000 dollars.

Not only is coffee unharmed, but on the contrary, it is a mental and physical stimulant to the activity of an individual, declared the professor.

Speaking before the National Society of Coffee Roasters, in the city, Professor Prescott said that coffee is a valuable agent for counteracting fatigue and improves the capacity for muscular work and the power of concentration necessary for mental work.

Professor Prescott is the chief of the Department of Biology and Public Health of Technical Institute at Boston, and is one of the foremost scientists of the world. To him was confided the direction of the special studies promoted by coffee men, with the view of definitely establishing the truth respecting this product. The numerous experiments he had to make and remake during the course of his investigations resulted in the formation of a perfect laboratory for the study of coffee.

In his speech before the National Society of Coffee Roasters, Professor Prescott said :—

'After weighing the evidence, a dispassionate evaluation of the data so comprehensively surveyed has led to no conclusions that coffee is an injurious beverage for the great mass of human experience. On the contrary the results of scientific experimentation point to the fact that coffee is a beverage which, prepared properly and rightly used, gives comfort and inspiration, augments mental and physical activities, and may be regarded as the servant rather than the destroyer of civilization.

'Coffee, properly prepared, has a remarkable stimulating and fatigue-relieving effect, due to the action of caffeine, which acts on the central nervous system. It promotes heart action mildly, increases the power to do muscular work, and increases the power of concentration of mental effort, and is therefore an aid to sustained brainwork. It has no depressive after-effect. It is not habit-forming, and does not require continually increasing quantities to give satisfactory stimulation. The action of caffeine may be likened for purpose of visualization to lubrication of machines, although the analogy is not perfect.'

COMMERCIAL AND METEOROLOGICAL

I. The Rupee Exchange for the week ending August 1, 1925

Bank Selling Demand Draft on London

27th	28th	29th	30th	31st	1st
18 3/32d.	18 3/32d.	18 3/32d.	18 3/32d.	18 3/32d.	Holiday

II. Summary of latest Market Reports and Prices to hand :—

(a) Some of the higher London Prices—

Highest prices realized on the London Market			Average prices obtained for tea			
Mark	Pkgs.	Price	District	Week ending July 11, 1925	January 1 to July 11, 1925	January 1 to July 11, 1924
(1) TEA (WEEK ENDING JULY 3 AND 11)		s. d.		s. d.	s. d.	s. d.
(a) Anamallais—			N. India	1 4·44	1 5·38	1 5·58
Selaiparai ...	32	1 8	S. India.	1 7·93	1 6·54	1 6·10
Sholayar ...	101	1 4½	Ceylon...	1 7·33	1 7·98	1 7·78
(b) Central Travancore			Java ...	1 1·76	1 0·92	1 2·40
Twysford and Ashley.	32	1 5	Sumatra.	1 5·29	1 4·46	1 4·40
Munjamallai ...	120	1 4½	Nyassa-land.	1 2·18	1 1·61	1 4·07
Peermade ...	82	1 4½				
(c) Kanan Devans—						
Latchimi ...	115	1 11½				
Periya Vurai ...	260	1 10½				
Yellapatty ...	77	2 0				
(d) Nilgiris—						
Sutton ...	70	1 4				
			Total	1 5·38	1 5·83	1 5·95

(b) *Precis of reports on London Markets received on August 3 and covering the week ending July 11—*(1) *Tea.*—Bidding was marked by increased activity, and the market showed distinct improvement throughout possibly due to a fear of

falling off in China deliveries owing to the trouble there. The keenest competition was for the best liquoring and tipping sorts, but good medium kinds were also in keen request, and even common kinds showed an advance of $\frac{1}{2}d.$ to $1d.$ per pound.

(2) *Rubber*.—The Miniature Boom continued; and Spot was sold for as much as $4\frac{1}{4}d.$ for Smoked Sheet or $1/0\frac{1}{2}d.$ above the 1917 record of $3\frac{1}{4}d.$, while contracts for August delivery, October to December delivery, and delivery throughout 1926 respectively were made at $3/6d.$, $3/2d.$ and $2/4d.$

(3) *Coffee*.—The market for East Indian's remained very dull except for a few parcels of sufficiently high quality to appeal to the Home Trade. Messrs. T. H. Allan and Co. give the following statistics of the position on June 30 :—

		Tons	Tons	Tons
Stock in London on June 30	...	14,795	10,565	35,725
Total European Imports to June 30	...	271,940	304,880	191,820
" " Deliveries to June 30	...	267,824	291,235	203,645
" " Stock on	"	95,235	97,470	108,825
World's Visible Supply on	"	294,295	295,680	313,530

III. Weekly Rainfall Statement

From April 1, 1925, up to and including Saturday, August 1, 1925

Stations are arranged in order approximately south to north and those not in planting districts are shown in small capitals.

Stations	W.	P.	Total	Stations	W.	P.	Total
1. Kalthuritty.	2.19	40.49	42.68	17. Coonoor ...	0.76	11.51	12.27
2. Tenmalai ...	2.54	42.11	44.65	18. Kotagiri ...	1.55	11.45	13.00
3. Mundakayam.	2.15	86.23	88.38	19. Ootacamund	0.88	21.29	22.17
4. Peermade...	6.97	81.46	88.43	20. Yercaud ...	1.13	17.26	18.39
5. V'periyar ...	2.85	36.44	39.29	21. Devala ...	6.81	67.47	74.28
6. Kalaar ...	7.13	106.61	113.74	22. Gudalur ...	0.68	44.37	45.05
7. Chittuvurrai	1.60	16.41	18.01	23. CALICUT ...	4.14	79.16	83.30
8. BODI'KANUR	1.01	4.25	5.26	24. Kuttiyadi ...	8.18	96.67	104.85
9. COCHIN ...	3.14	57.17	60.31	25. Vayittiri ...	8.16	94.39	102.55
10. Mooply ...	3.29	58.27	61.56	26. Manantodi...	3.72	66.98	70.70
11. Pachaimalai	3.49	65.68	69.17	27. Billigiris ...	N.R.	24.93	N.R.
12. Mudis ...	7.36	102.47	109.83	28. Sidapur ...	2.36	44.03	46.39
13. POLLACHI.	0.11	10.80	10.91	29. Somwarpett	1.90	46.72	48.62
14. Manjeri ...	4.47	66.46	70.93	30. Ballupete ...	1.60	47.64	49.24
15. Nilambur ...	6.68	52.00	58.68	31. MANGALORE.	8.49	86.58	95.07
16. Naduvattam	0.78	48.21	48.99	32. MADRAS ...	0.55	7.58	8.13

W = During the week.

P = Previously.

N.R. = No return.

The Planters' Chronicle

Recognized as the Official Organ of the U. P. A. S. I. (Incorporated)

Managing Editor's Postal Address : POST BOX 155, MADRAS

Do. do. Registered Telegraphic Address : UPASI, Madras

VOL. XX, NO. 33] SAT., AUGUST 15, 1925 [PRICE, AS. 8

CONTENTS

	PAGE		PAGE
Editorial Notes ...	587	Anamalai Planters' Association Extraordinary General Meeting ...	602
Thirty Years On ...	589	Wynaad Planters' Association Ordinary General Meeting...	606
Eothen's Monthly Market Notes ...	589	Export Statistics ...	608
Coorg Planters' Association Annual General Meeting ...	592	Commercial and Metesrological ...	609
Sulphur as Fertilizer ...	598		

EDITORIAL NOTES

We record with deep regret the decease in England, on the 2nd instant, of Mr. H. M. Knight, for so many years well known as a prominent proprietary-planter in Travancore, whose very valuable and extensive holdings the Travancore Rubber Co., Ltd., eventually took up. His loss leaves a big gap in Planting Circles at Home, and will be deeply felt by a very large circle of friends.

This cry—extraordinary as it may seem—is according to the *Mysore Economic Journal* being voiced by the Governments of Queensland and New South Wales. The fifty million acres now abandoned in these two countries to the prickly-pear pest is increasing annually by about one million acres, despite the Governments' efforts which—owing to the prohibitive expense of eradication by uprootal—take the form of introducing a parasite that, on penetration to the cellular formation below the tough skin, kills the plant. The only economic

value of prickly-pear so far as we know is as a makeshift food for cattle, and an ingredient in white wash which, thus treated, is supposed to become more adhesive. Distillation of alcohol from the plant has hitherto proved impracticable from an economic point of view as the known process only gave a yield of $1\frac{1}{2}$ gallons per ton. Now, however, a Dr. W. M. Sinclair who has been investigating the possibilities of prickly-pear as a cure for cancer has incidentally found a process by which a yield of no less than fourteen gallons per ton has been obtained, and the Governments of Queensland and New South Wales who have examined and endorsed Dr. Sinclair's report consider that in certain localities prickly-pear will have to be cultivated for the purpose of procuring power alcohol at a unprecedentedly low rate.

The United States are being given food for thought not only by Rubber Restriction in the middle east, but also by Coffee Restriction in Brazil. That country of course produces seventy per cent of the world supply. A good half of its output is absorbed by the United States. The Brazilian coffee growers are limiting exports with the view to putting prices up. The American buyers wish of course to counteract decrease in supplies by a decrease in demand and thus keep prices down. A movement to decrease demand must always be a very hazardous expedient for retailers; who in such circumstances may easily find that they are hoist with their own petard; or in other words that the trade on which they are dependent for a living has been considerably prejudiced, if not irretrievably destroyed by operations which, once started, could not be restrained at the psychological moment, and as a consequence ended by impairing what they were designed to uphold.

Comparing the averages of 1925 to date with those of 1924 for the same period, it is satisfactory to note that while Java and Nyazaland teas show a considerable falling off and North Indian teas manifest no improvement, the prices of South Indian tea marked a considerable advance; and this despite the fact that as shown in the Table of Exports on page 608 11,890,093 lbs. of South Indian tea were exported during the quarter ending June 30, 1925, as against 10,581,620 lbs. for the corresponding period of last year. For January to March inclusive the 1925 and 1924 figures were respectively 10,725,655 and 7,759,145; so that during the six months ending June 30, the 1925 exports exceeded the 1924 exports of South Indian tea by 4,274,983 lbs.

A Planting Correspondent of the *Malaya Mail* states categorically that a total and immediate abandonment of restriction would not increase the output of rubber in Malaya by a single pound, because the available tappers working at full pressure could not produce more than eighty-five per cent or at the most ninety per cent of the standard production. Assuming the productivity of one tapper to be $1\frac{1}{2}$ tons per annum, each ten per cent release gives scope for the activity of 18,000 tappers working full time, and to bring production up to to standard no less than 63,000 tappers would be required. These he contends are not procurable, and points out that even if there were many of the trees now being tapped have reached or even passed their zenith, so that their output in the near future is bound to show a falling off.

THIRTY YEARS ON

On July 18 we published the agenda at the thirty-second Annual General Meeting of the United Planters' Association of Southern India which (at the instance of Mr. Tigby Brett, the then Chairman of the North Mysore Planters' Association) was inaugurated as 'The Planters' Conference' on Monday, August 28, 1893, in the Cubbon Rooms at Bangalore. That Conference at the same venue on September 3 of the following year formed the United Planters' Association of Southern India, which at its conception consisted of thirteen District Associations paying an annual aggregate subscription of Rs. 2,150.

The agenda at that first meeting and at the forthcoming one remind us that certain problems, like the poor are always in our midst. Such hardy perennials as Finance, Communications, Political Representation and Labour Laws appear in both. But items like Chronicle, Benevolent Fund, Provident Fund, Buying Agency on the one hand and Rubber Mycologist, Tea Specialist and Experimental Stations on the other, indicate how the Association founded over thirty years ago has both intensively and extensively progressed from strength to strength.

That progress has been of stupendous import not only to the various Planting Companies, but also to the Country as a whole. Tracts of jungle, for example, have been reclaimed, communications have been opened up, and hundreds of thousands of the poorest classes have been happily employed.

But the labourers employed by the planters are illiterate and voiceless, and planters themselves are more prone to deeds than words. So they live their laborious days more or less unhonoured and unsung by the Powers that be, and often maligned by the Powers that want to be, but withal content with work well done. For after all the average Britisher prefers a monument more lasting than brass, because composed of enterprises boldly undertaken and staunchly carried through.

We wish all success to the ensuing deliberations of the Representative Body of the Planters of Southern India; and hope that those participating in them will return to their individual labours with increased vigour and zest. The annual gathering of the clans will once again remind them that they are not merely self-contained bread earners, but sharers in an extraordinarily fine enterprise which is a monument both to the pioneers who started it and to their successors who are carrying it on to-day.

MONTHLY MARKET NOTES

BY

'EOTHEN'

TEA

Overshadowed, naturally, by the rubber boom, tea has nevertheless improved in price during the past month. At last week's auctions quotations for all descriptions were appreciably higher and bidding was active. Quality varied however, and this caused some irregularity in

prices. Badly made and stalky teas were weak. New season's Darjeeling sold well. Ceylon descriptions showed a falling off in quality. The following are the average prices realized up to date, save for the auctions of the past three days :—

		<i>Week ending July 10, 1925</i>	<i>Same week, 1924</i>	<i>January 1 to date, 1925</i>	<i>January 1 to date, 1924</i>
Northern India ...	...	1/4.44d.	1/6.33d.	1/5.38d.	1/5.58d.
Southern India ...	...	1/7.93d.	1/6.53d.	1/6.54d.	1/6.10d.
Ceylon ...	...	1/7.33d.	1/7.35d.	1/7.98d.	1/7.78d.
Java ...	...	1/1.76d.	1/2.95d.	1/0.92d.	1/2.40d.

Notice the remarkable improvement in the Southern Indian average, which now tops Ceylon's figure.

At the Ceylon auctions this week the demand was rather more restricted owing to the presence, common to this time of the season, of a predominance of poorer teas, such as medium leaf and thin liquoring brokens, and prices moved with some irregularity. There was no material change, however, in the prices realized for the finest descriptions. At the same time common teas seem to be recovering when we remember the poor prices which were obtained about Easter time. The maintenance of rates is all the more noteworthy as the present is the tail-end of the season. First deliveries of the new Indian crop will not be available until August. In view of expanding consumption, and the belief that the new crop will not be excessive, the outlook for a good tea market in the autumn is encouraging. Judging by the Customs House returns, while the withdrawals for home consumption have shown no expansion, compared with June 1924, exports have been larger.

The public is beginning to realize the strong position of the industry and tea shares are in favour once more. At the recent low level of prices tea shares gave exceptionally high yields on actual dividends, ranging up to thirteen per cent. Reserves have been strengthened out of the substantial revenues of the past year. The experience gained by the companies through low prices resulting from coarse plucking should ensure against a repetition of this policy. For the genuine investor the tea share market is one which offers a very attractive return on capital, coupled with good security.

At yesterday's sale the demand for good liquoring teas was a feature and rates for all Assam kinds with quality from 1/4d. per lb. upward were maintained. Commons had a tendency to droop. Two more weeks' sales should dispose of the balance of the old season's crop.

The long awaited Russian buying seems a long time in coming. Germany is alleged to be buying cocoa to pass on to Russia. It is argued that if Germany's border States and/or Russia can buy cocoa there seems no reason why Russia should not shortly be able to buy more tea.

RUBBER

Scenes reminiscent of the rubber boom of 1910 have livened the Stock Exchange during the past few days. Despite the strenuous attempts made by the Americans by means of manifestoes, conferences, consultations

with the Dutch, and the proposed subsidies to the Government of Liberia, the actual shortage of spot rubber here and in America has resulted in the price getting entirely out of hand. What is more important than the spot price is that the discounts which formerly obtained for the forward positions have now narrowed and contracts have been entered into for the sale of rubber for the whole of 1926 at $2/7\frac{1}{2}d.$ per lb. The month has really been an amazing one in the history of the rubber industry. The extent of the rise may be gauged by the fact that the price of spot rubber is actually at $1/-$ higher now than it was a week ago. In Mincing Lane on Monday, July 13, it was at once apparent that speculators were taking a violent interest in the situation. There was a good deal of Continental buying, however, in addition to American enquiries and as the American price had come over at a dollar and ten cents per lb. there were actual dealings in spot at $4/6d.$ although $4/4\frac{1}{2}d.$ was the official closing price.

The rubber share market completely lost its head; the public ceased to discriminate in its selection of shares and bought anything and everything. The physical inconveniences in dealing on the Stock Exchange could not be exaggerated and owing to the difficulty in getting at the dealers quotations were often very varied, there being occasionally differences of $6d.$ and $1/-$ between the price of a particular share as quoted at different ends of the market.

Copies of cables exchanged in May and June between the Rubber Association of America and Mr. Eric Miller, last year's Chairman of the Rubber Growers' Association, proved the intensity of feeling which the increase in price of rubber has caused in American rubber manufacturing circles. Allegations of breach of faith are freely made by the Americans who state that the Rubber Growers' Association delegation which visited them early in 1923 gave definite assurances that in the case of there being an emergency or price crisis in the rubber market the prerogative of sanctioning additional releases of rubber other than the ten per cent laid down under the restriction ordinances could and would be exercised by the British Government. The Rubber Growers' Association have not published these cables in this country as they consider them to have been exchanged between Mr. Eric Miller personally and the Rubber Association of America. The Secretary of the Rubber Growers' Association declares that the Rubber Growers' Association has never given any assurances that restriction would be modified, and has, in fact, studiously refrained from committing itself in this matter. The view is taken that the American manufacturers have brought the present high prices upon themselves by pursuing their policy of hand-to-mouth buying last year when, it will be remembered, they forced the price down to under $10d.$ per lb.

There was naturally a flood of Parliamentary questions regarding restriction and Mr. Ormsby Gore, on Monday, repeated that, for the time being at least, the Government, who were watching the situation, saw no reason to interfere with the workings of the restriction ordinances.

The London rubber stock is still very low, but further declines are not expected. The following are the figures for the week ended July 11:—Landed 1,328 tons, delivered 1,321 tons, stock 4,484 tons, or an actual gain on the week of seven tons, against 51,013 tons a year ago and 49,976 tons in 1923.

There has been some reaction both in the commodity and in the share market during the past two days, but for once in a while the hateful phrase, 'healthy reaction' may honestly be used. The market will be none the worse for this shake out. There was a special rubber settlement yesterday which gave some of the speculators a bit of a fright. The Stock Exchange account which ends next week is one of the heaviest for very many years.

COFFEE

Brazil's efforts to wake up the dull spot situation has not met with much success. The market has changed little. The American view of the statistical position is that the supply for the coming season is larger than consumption will require at present prices, and looking even further ahead it is admitted that the outlook for the 1926-7 crop is excellent. The domestic distributor, expecting lower prices in the future, is pursuing a hand-to-mouth buying policy (not unlike that which has brought the American rubber manufacturers to grief). At recent auctions the demand has been moderate and prices steady.

The termination of the 1924-5 coffee season found the world's visible supply standing at practically the same figure as at its commencement, i.e. five million bags, and this in spite of a reduction of about 1½ million bags in world's deliveries. Moreover, stocks in the interior of Sao Paulo (not usually reckoned in statistics) at the end of June were supposed to amount to about two million bags as compared with 4,600,000 bags twelve months ago. During the month of June supplies offered in auction in London were distinctly smaller than of recent months but, nevertheless, demand was extremely slow and although finest sorts maintained former values, medium and common descriptions showed a declining tendency, particularly the latter which are several shillings cheaper.

Messrs. James Cook and Co.'s circular, while expressing the opinion that the anticipated new season's supplies plus the carry forward from last season should apparently be more than sufficient for the world's expected needs, considers that the past success of Brazil in maintaining prices by regulating supplies, either by purchase of coffee or limiting receipts, should act as a warning to those who are disposed to look for a much lower range of values.

LONDON,
July 16, 1925.

COORG PLANTERS' ASSOCIATION

(INCORPORATED)

Proceedings of the Annual General Meeting, held at the North Coorg Club, Mercara, on Monday, July 20, at 11 a.m.

Present

Messrs. L. Newcome (*Chairman*), G. R. Pearse, F. Macrae, C. G. Maclean, A. E. J. Nicolls, R. Bentley, J. O. Maurice, C. L. J. Humphreys, D. C. Mahon, C. A. Reid, F. Roberts, R. H. V. Harper,

R. D. Potter, E. Krohn, E. M. Gray, A. S. L. Grove, J. B. Reid, G. P. White, J. S. H. Morgan, T. J. Tasker, O.B.E., I.C.S. (*Commissioner of Coorg*), Captain F. R. Thornton, I.M.S. (*Civil Surgeon of Coorg*), D. J. Duncan and A. F. Magniac (*Honorary Secretary*).

The notice calling the meeting was read.

The minutes of last Quarterly Meeting were read and confirmed.

Election of Office-bearers.—The following were elected as Office-bearers for the current year:—

President: Mr. L. Newcome.

Honorary Secretary: Mr. A. F. Magniac.

U. P. A. S. I. General Committee: Messrs. L. Newcome and A. E. J. Nicolls.

U. P. A. S. I. Delegates: Messrs. L. Newcome and A. E. J. Nicolls.

North Coorg Committee: Messrs. Pearse, Nicolls, Morgan, Col. Bucknall, Sprott, Maclean.

South Coorg Committee: Messrs. Bracken, Macrae, Jackson, Scholfield, Gerrard, Hume.

Accounts.—The Honorary Secretary explained the accounts which had been previously circulated. Proposed by Mr. Pearse, seconded by Mr. Macrae that the accounts be passed. (*Carried unanimously*). Proposed by Mr. Magniac, seconded by Mr. Newcome that Mr. W. J. Siromani be again elected as Auditor. (*Carried*).

The Honorary Secretary then read the following report:—

MR. CHAIRMAN AND GENTLEMEN,

I have again the pleasure to present my report for the past year, ending March 31, 1925, together with the accounts, which have been audited, and which I trust will meet with your approval.

It is with deep regret that I have to record the loss of one member during the year through death, Mr. A. J. Wright, who, during the four years he was your Honorary Secretary, did a deal of hard and useful work for this Association.

Meetings.—There have been 3 Committee, 3 General and 2 Extraordinary General Meetings during the year. These have all been well attended, but the average attendance is slightly less than for 1923-24.

Membership and Subscriptions.—The number of personal members was 11; firms, 4; estates, 47. The subscribing acreage was tea, 316; coffee, 13,975; and rubber, 1,552; total acreage, 15,843. I again thank all members for having paid in subscriptions promptly; it greatly simplifies the routine work.

The S. I. P. Benevolent Fund.—Though the total subscriptions to this fund have for the last two years reached over four figures, this is not due

to any general increase of support from members. Of the total subscribed this year, Rs. 1,052, Rs. 736 has been subscribed by three parties. Last year, out of Rs. 1,070, Rs. 700 was subscribed by two parties. Our average number of subscribers per year since 1909, when the fund was started, is sixteen only. I again appeal to every member to subscribe his ten or twenty, an amount which all can pay; and when it is remembered that all money subscribed to this fund is devoted to helping those of the planting community who are in distress, or their dependents, it is more than surprising that more support is not given, especially when Coorg makes more calls on the fund than any other Association.

Correspondence.—The average correspondence per month amounted to 131 letters, including all circulars, notices, official and private letters to members.

General.—One of the most important matters that affected the Association during the year was the new scheme for working the Labour Department, as put up by the Anaimallai Planters' Association. This Association was wholeheartedly in favour of maintaining the department. This current year we have lost 540 acres, and gained 39 acres, making a total loss in acreage of 501, and our full subscribing acreage is 15,352, as against 15,843 last year. Out of this acreage of 15,352, 14,471 acres support the Labour Department. I hope the remaining 881 acres will see their way to joining the Labour Department next year.

Repeal of Act XIII.—Your Chairman put up a resolution in the Coorg Legislative Council, for a new act to replace Act XIII. His resolution was put through with only one dissentient, and the drafting of the new Act for Coorg will shortly be undertaken by a Committee nominated by the Chief Commissioner.

British Empire Exhibition.—This was also very much before members, but met with no combined support.

Amongst other matters of interest that have come before the Association are the Mysore Coffee Station and Cess; the U.P.A.S.I. Sports Club; Coorg Postal arrangements; and European Doctor for Coorg; all of which will come up again in the near future.

Your thanks are due to our District Board Members, Messrs. Pearse and Tipping; and to our Legislative Council Members, Messrs. Tipping and Nicolls; for the work they have undertaken on our behalf. Your thanks are also due to Mr. L. Newcome, who has kindly consented to carry on the duties of Chairman till the Annual Meeting in place of Mr. P. G. Tipping, who has gone Home, and for representing us as Delegate at the various meetings of the U.P.A.S.I., at Ootacamund.

Finally, I think it is very necessary to bring to the notice of all members that the work of the Association is increasing to such an extent, both in quantity and importance, that if it is to be satisfactorily carried on, and the usefulness of the Association extended in your interests, fresh methods for dealing with it more effectively and speedily must be found. The existing arrangement is not satisfactory. I hope younger members will be seen on the Committee in the coming year and will make a point of attending meetings and becoming acquainted with the work the Association does, as it is interesting to proprietors, managers, and

superintendents alike. Representatives must be found to carry on our interests in the Council, watch our interests in District Board meetings, and represent us at the various U.P.A.S.I. Meetings. The same members cannot be expected to carry on the work indefinitely.

In conclusion, I have to thank the Chairman, and those members of the Committee who have assisted me with their opinions and advice during the past year.

I now beg to tender my resignation.

The Chairman made the following speech :—

GENTLEMEN,

I thank you for the honour you have done me in electing me your Chairman for the coming year and I will endeavour to serve your interests and the interests of the C. P. A.

In particular, I hope that early information on subjects of interest will be distributed to all members before the meetings. This entails a further burden on your Honorary Secretary, a burden that he has cheerfully undertaken as he has many others that have been laid on his shoulders. Without going into it, I think few members realize the amount of work entailed on an Honorary Secretary under modern conditions. I hope however that this procedure will still further increase the interest now being taken in C. P. A. affairs and will still further increase the very satisfactory numbers of members who attended meetings last year.

As a new Chairman, I need not go into all that happened last year. Your Honorary Secretary has given a very able resumé of that, and will also present the accounts, which show a very satisfactory balance of Rs. 1,334-13-7, on revenue account and a cash on hand balance of Rs. 5,776-14-7. This reflects great credit on our Honorary Secretary's work. The latter sum may seem somewhat large, but it should be remembered that our Association has to pay over Rs. 6,000 quarterly to the Upasi account, while members are not always very prompt in sending in their subscriptions.

In the coming year probably the questions that will take most of your time will be those connected with labour. If we can solve these within the next year or two there is no reason why coffee as well as all other products should not continue to prosper. A great deal of legislation is in the air and it behoves us to watch carefully all the clauses, opposing the bad and furthering the good. Labour calls for still more advanced social measures and I hope it will continue to be our pride to keep the labourer's living conditions far in advance of those which obtain in his own country.

The chief measure that immediately concerns us is the Act to replace Act XIII. I hope that later our Commissioner, who has honoured us with his presence here and who has the welfare of planters, as he has that of all Coorg, at heart, will kindly say a few words on the subject.

The New Control Committees, so far as I have seen them working as a member, promise to be a great success. I would appeal to all Committee members, including myself to see to it that they do control, within the limits assigned them, and are not mere dummies,

On the whole, coffee planters need not despair. Crops, with some fortunate exceptions, will be much less than last year and borer is bad. To say nothing of the increased cost of living we are faced with increased demands here a little and there a little, but all mounting up yearly from labour, the Upasi taxes, science, medical funds and charity. The price of coffee in London has disappointed many. But it must be remembered that even the present price is considerably above the average of the last twenty years and if it remains so, we should be able to make both ends meet and may even be allowed, among increasing demands to retain a living wages for ourselves.

Whilst on this subject, I wish to appeal to all the members to support the Benevolent Fund. The cases quoted by Mr. Waddington on the paper sent to each member will prove that it is a real charity, not only helping the under dog of our own race and calling, but, what is even more important, saving the innocent children from the degradation and ruin that awaits those of the 'broke' in this country. Coorg should be in the proud, though not single position of having 100 per cent members.

Lastly, there is the Upasi Sports Club. I appeal for this with more diffidence. We have our Mercara Week of old standing, and even the end of March is often a busy time for coffee, still it must be remembered that the Club specially altered the date to suit coffee, as far as possible, that only three or possibly four men went up last year and that the present number of members is five. Some are in the fortunate position of being able to attend both events, others wish to go to the Nilgiris for their health, and again, if the Club were supported more generously, we could pay the T. A. of younger members who would represent the C. P. A. in Inter District Games.

Act XIII of 1859.—The Commissioner of Coorg addressed the meeting on this subject, and the progress so far made with the draft bill for Coorg, but stated that details would not be made public till about the end of August.

Medical.—The Commissioner explained the position with regard to the proposed raising of the cess to six annas per acre for payment of medicines, supplied by the hospitals and dispensaries in Coorg. After some discussion it was decided to postpone any decision on the matter till the next Quarterly Meeting, various details being enquired into meantime.

Roads and Communications.—The Commissioner of Coorg informed the meeting the present position in connection with the Kuttapoya and Irrity bridges. The Honorary Secretary was requested to ascertain from the Executive Engineer, South Canara, the strength of the bridges and culverts on the Mangalore Ghaut.

The Maternity Benefits Bill.—The Chairman pointed out to the meeting that the Association had agreed to the principles of Mr. Joshi's Bill some two years ago, but members had not been informed, and under the circumstances it was decided to fall into line with the views of other associations on the matter.

Coorg Postal Arrangements.—The Chairman read letter from the Postmaster-General to the Secretary, U.P.A.S.I. It was proposed that the Honorary Secretary write to the Postmaster-General, pointing out the

Coorg was not getting its more important postal matter any earlier. It was also decided to bring up a resolution at Bangalore, and endeavour to find out how the contract for carrying the mails was arranged.

Scientific Department.—There was considerable discussion on this subject, and the Sidapur Station. The Chairman explained the position as regards the Mysore Station, and Dr. Coleman. It was finally decided to postpone any definite decision with regard the Sidapur Farm and the two annas U.P.A.S.I. Cess till after the Bangalore Meeting.

Reduction of Committee.—Mr. Nicolls' resolution regarding reduction of the number of Committee members was discussed. An amendment by Mr. Macrae that the Committee should be reduced from 12 to 8 members, i.e. 3 from North Coorg and 3 from South Coorg, the Chairman and Honorary Secretary, being ex-officio was put to the meeting and lost. Mr. Nicolls' resolution slightly amended and reading as follows was then put to the meeting :—

That the Committee should be reduced from 12 to 6, namely, 2 members from North Coorg, and 1 member-in-waiting, and 2 members from South Coorg, with 1 member-in-waiting. That the member-in-waiting should not be entitled to vote, unless he represented the active member elected to represent the same district. Those members 2 from North Coorg, and the member-in-waiting and 2 from South Coorg, and the member-in-waiting, who obtain the highest number of votes shall be elected, 2 as active members of Committee and 1 member-in-waiting, for North and South Coorg respectively. (*Carried unanimously.*)

Mr. Magniac's extraordinary resolution proposing the necessary alteration of Articles of Association was next put to the meeting and was carried unanimously.

The Honorary Secretary's Honorarium.—An amendment to the original resolution of Mr. Nicolls was put to the meeting, namely, that the Honorary Secretary should be presented with an honorarium depending on the amount of balance to the credit of the Association, as shown by the accounts, at the end of each financial year. (*Carried.*)

Proposed from the Chair that the Honorary Secretary be presented with an honorarium of Rs. 1,000, from the funds available this year. (*Carried unanimously.*)

S.I.P. Benevolent Fund.—The Honorary Secretary informed the meeting of the present amount of subscriptions to this fund, and stated he was pleased to see more estates subscribing this year. What he much wanted to attain was a definite promise that estates and members would subscribe yearly, and so assure a fixed sum for this fund, instead of either the Chairman or himself having to make appeals each year. Subscriptions would easily amount to well over Rs. 1,000 yearly if members would agree to this.

The Chairman stated that the Honorary Secretary would be glad to receive any subscriptions from members after the meeting.

U.P.A.S.I. Sports Club.—The Honorary Secretary called attention of meeting to the Honorary Secretary of the U.P.A.S.I. Sports Club's letter in the *Chronicle* of July 11, calling for a Sports Club representative. Mr. J. S. H. Morgan was chosen as representative of this Association.

Labour Department.—The Chairman addressed the meeting on the subject of the proposed Labour Rules for absconding coolies, and on points of interest, in labour matters that came up at the Control Committee Meeting in Mysore and asked members to consider the question of direct recruiting and its connection with agents serving warrants, etc., before the next Quarterly Meeting.

General.—Mr. Pearse on behalf of the meeting thanked the Chairman and Honorary Secretary for the way they had conducted the business of the Association, after which the meeting terminated.

A. F. MAGNIAC,
Honorary Secretary.

L. NEWCOME,
Chairman.

SULPHUR, SULPHATES AND SULPHIDES AS FERTILIZERS

No secondary action, such as liberation of phosphorus, nitrogen or potash, is responsible, says Mr. George Schumacher, Medford (Oregon), Metallurgist, in *The Mining Journal and Press* for the remarkable increase of yields on plant growth when direct fertilizers in the shape of sulphur, sulphates, or sulphides are applied.

Sulphur-content of Plants Long disregarded

For a time the practice of analysing the ash-content of plants for inorganic matter caused the agriculturist to neglect the importance of sulphur-content of plants, because often the largest part of the sulphur in plants is combined with organic matter and so escapes the analyst if he makes the sulphur determination from the ash-content only.

TABLE I

Plot	Application	YIELDS IN POUNDS							
		Pounds	Fertilizer Constituents	Pounds	1st year	2nd year	3rd year	4th year	Total
1	Check	...	...	...	299	96	76	38	509
2	Gypsum	59.5	Sulphur	10.0	1088	984	608	214	2894
3	Monocalcic Phosphate.	41.0	Phosphorus	9.6	318	142	94	52	606
4	Superphosphate	82.3	Phosphorus	7.4	1092	964	600	216	2872
			Sulphur	10.0					
5	Check	...	...	...	216	67	66	70	419
6	Sulphur	10.0	Sulphur	10.0	528	1054	740	230	2552
7	Sulphur	30.0	Sulphur	30.0	1002	1076	756	206	3040
8	Iron sulphate	84.0	Sulphur	10.0	1122	1156	896	272	3446

It is however interesting to see that the farmer has used sulphur as fertilizer unconsciously, in the form of gypsum and superphosphate, ever since mineral fertilizers began to be used, believing that the lime-content of the gypsum and the phosphorus of the acid phosphate alone were responsible for the beneficial results obtained. During the last thirty years, investigations carried out in the United States and abroad have established the fact that oats, cowpeas, cabbage, beans, kale, turnips, clover, alfalfa and the like contain considerable amounts of sulphur not to be found in the ash-content. The direct application of sulphur brought remarkable results in the yield of cabbage in France, of alfalfa in Oregon, and elsewhere. Occasionally, increased yields were reported in ground containing pyrites.

A very valuable series of experiments, most interesting to the mining industry, was carried out during recent years by Prof. F. C. Reimer, of the experiment station at Talent, Southern Oregon. These experiments established the facts that neither phosphorus nor lime is responsible for the extraordinary yields, if gypsum or superphosphates be used, but solely the sulphur-content of the fertilizers; that the same or even better results could be produced with sulphur alone or with sulphates, and that it did not matter if these sulphates were sulphate of ammonia, sulphate of lime, sulphate of potash or sodium, or sulphate of iron. The possibility of using sulphate of iron as a fertilizer is of course of great interest to the mining and metallurgical industry.

Material Increase of Hay Production follows use of Sulphate of Iron

Table I shows the results of application of sulphur in various forms of alfalfa on experimental plots 2×8 rods in size. The last year of the experiment was very dry, and the yield was no doubt influenced by the adverse climatic conditions. The fertilizers were applied in the first year only.

The first series of experiments proved :—

1. The extraordinary increase of hay produced on all plots where sulphur in one form or another was applied.
2. The rapid action of soluble sulphates and the somewhat slower action of ground sulphur.
3. That rock phosphate had no effect.
4. That the most soluble sulphate used in the experiment gave the best results and that this sulphate was sulphate of iron.

The yields alone, however, do not tell the true story. The unfertilized check plots and the plot treated with rock phosphate were full of weeds and the actual content of alfalfa in the hay was only thirty-nine per cent. All sulphur-treated plots, however, produced an excellent hay practically free from weed.

Several years ago I made the observation without thinking that sulphate of iron would act as a direct fertilizer. I had an alfalfa field treated with sulphate of iron as an experiment to get rid of the weeds. The result

was very satisfactory, and I considered at that time the increased yield to be due to other fertilizers and was satisfied with the elimination of the weeds.

It is evident that the figures presented in Table I show conclusively that a liberation of phosphorus is not responsible for the increase of hay, which on the plot treated with sulphate of iron, was nearly seven times as large as the untreated plot.

That neither the liberation of potash or nitrogen is responsible for the beneficial effects by an application of sulphur is proved by Table II.

This series of experiments was carried on for three years, only on the same sized plots as before and with alfalfa. The results were identical with those of the first series, proving the value of sulphates as fertilizers and do not induce secondary actions responsible for the increased yields.

If iron sulphate has such a beneficial effect on alfalfa, it might be presumed that pyrites also would act favourably on alfalfa, although the transformation of pyrites is slow and most likely complicated in the presence of lime carbonates.

Table III shows an experiment carried on for two years only so as to find out what influence pyrites has and also if lime without any sulphur would have any beneficial effect on alfalfa in the same kind of soil.

All the experiments represented in Tables I, II and III were carried on with alfalfa and on soil comparatively rich in lime, magnesia and potash, but poor in phosphorus and nitrogen. As alfalfa is able to assimilate nitrogen from the air, it could be foreseen that an application of nitrogen would be of no benefit, but of great importance is the behaviour of the soluble and insoluble phosphates.

TABLE II

YIELDS IN POUNDS

Plot	Application	Pounds	Fertilizer Constituents	Pounds	Yields in Pounds			Total
					1st year	2nd year	3rd year	
1	Check	...	...	...	49	104	44	197
2	Sulphur	60	Sulphur	60	370	532	176	1078
3	Sulphur	10	Sulphur	10	284	708	208	1200
4	Sulphur	30	Sulphur	30	482	672	212	1366
5	Gypsum	59.5	Sulphur	10	789	652	200	1641
6	Monocalcic Phosphate	31.6	Phosphorus	7.47	118	100	68	286
7	Superphosphate	82.3	Sulphur	10.00	772	652	224	1648
			Phosphorus	7.47	...	...	...	...
8	Muriate of Potash	53.3	Potassium	44.20	80	136	96	312
9	Sulphate of Potash	59.4	Potassium	44.20	596	692	240	1528
			Sulphur	10.00	...	...	...	...
10	Check	...	...	...	138	144	48	330
11	Nitrate of soda	55.8	Nitrogen	8.57	154	120	44	318
12	Sulphate of ammonia	42.3	Nitrogen	8.57	772	516	180	1468
			Sulphur	10.00	...	...	...	...
13	Iron Sulphate	86.9	Sulphur	10.00	754	628	200	1582
14	Sulphate of Magnesium	78.2	Sulphur	10.00	834	648	172	1654
15	Sulphate of sodium	103.3	Sulphur	10.00	648	608	160	1416
16	Check	...	...	...	94	140	44	278

Although the more soluble calcium sulphides were not used for systematic tests, experience with lime sulphur spray shows that this sulphide acts also as a fertilizer. Whenever such spray material is spilled on the ground a more luxurious growth of vetch, clover and similar plants results. The beneficial results of sulphur application on vetch, clover, peas and beans are apparent.

The protein content of the hay influenced by sulphur is higher than in hay not treated with it, and the vigorous development of the root-system underground and the overground part of the plant must be responsible for killing out the weed. The disappearance of grasses can hardly be caused by the sulphur direct. To try this I treated grasses with fairly large doses of ammonium sulphate, and the result was better than with a treatment with nitrate of soda.

If sulphur is used on a lime-free soil, no effect is noticeable. In fact, the resulting acidity of the soil is harmful. The sulphur must be able to combine with a base, and lime seems to be the best medium. However, iron sulphate is taken up by plants very rapidly.

I have carried on a number of experiments with iron sulphate in an attempt to influence the color of the wood in living trees. The tannin-content of the wood in combining with sulphate of iron will produce grayish or even black-coloured wood, and the influence of the iron sulphate can be traced very rapidly, if larger quantities are used, as even the leaves begin to show dark-coloured veins within a few days.

TABLE III

YIELDS IN POUNDS

Plot	Application	Pounds	Fertilizer Constituents	Pounds	First year	Second year	Total
1	Check	...	...	...	152	44	196
2	Pyrites	47.68	Sulphur	19.22	240	140	380
3	Pyrites	47.68	Sulphur	19.22	270	144	420
4	Sulphur	10	Sulphur	10.00	628	212	840
5	Gypsum	59.50	Sulphur	10.00	704	256	1020
6	Quicklime	200.00	Lime	200.00	168	56	224
7	Ground limestone.	200.00	Lime	112.00	172	48	220
8	Check	...	...	...	148	52	200

The beneficial effect of acid phosphate in most cases may be due to both sulphur and phosphorus, but the above-recorded experiments prove without doubt that under certain circumstances the sulphur, and the sulphur alone, is responsible for the fertilizing action of acid phosphate. The tendency to make concentrated soluble phosphate may be of very doubtful value to the farmer, if in such case he loses the sulphuric acid frequently

considered as a ballast only. Experiments carried on at present, but not concluded, may prove that rock phosphate alone, with an addition of ground sulphur or a soluble sulphate, has the same effect as superphosphate.

For the mining industry the possibility of using all kinds of soluble sulphate as fertilizers, especially sulphate of iron, should be of great interest, as iron sulphates could be produced either without great expense or are already unsalable by-products. The fixation of SO₂ in a simple way with the possibility of using the dry end product as a cheap fertilizer is especially attractive for the metallurgist.

It is advisable for the mining industry to stimulate experimentation with sulphur and sulphates under all possible conditions and to ascertain the value of these for fertilizers for the farmer and market gardener. For years I have carried on experiments with sulphur and sulphates in my garden and have noticed nearly always the beneficial effect of such treatment on most of our ordinary vegetables. But only through systematic experimentation should definite conclusion be made.

The fact alone that sulphur is a fertilizer will not make it salable. The final answer will be given by the monetary return the farmer gets by its application. If he can be shown \$ 3 worth of sulphate of iron will produce \$ 30 worth of hay more than without it he will use it. But he must be shown. If sulphates alone act as fertilizer, or a mixture of sulphur or sulphates with rock phosphates act in the same way as superphosphates, the metallurgist should be able to meet the demand for such fertilizers in more than one way, with benefit to the mining industry and the farmer

ANAMALLAI PLANTERS' ASSOCIATION

(INCORPORATED)

**Minutes of an Extraordinary General Meeting held at the Anamallai Club,
on Thursday, July 30, 1925, at 11 a.m.**

Present

Messrs. F. Simmons (*Chairman*), P. E. Achard, D. Cooper, C. W. Mayow, B. L. John, E. G. F. Maule, E. V. Hammond, G. B. Reade, C. F. Clarke, S. Sladden, J. C. Robertson, E. H. Beadnell, C. M. Hetherington, J. H. Ireland-Jones, H. H. Stuart, A. V. Danagher, J. J. Lardner, C. L. Napier, E. W. Simcock, W. V. Reilly, B. D. Darkin, E. Hardy, W. Ogilvy, C. K. Pittock, W. H. Martin and J. E. Sampson (*Honorary Secretary*).

Minutes.—The minutes of the following meetings, having been circulated to all members, were taken as read, and confirmed:—

1. Meeting of the General Committee, dated June 2, 1925.
2. Annual General Meeting, of the same date.

Election of Members.—By permission of the members present this item was added to the agenda, and Mr. B. D. Darkin, proposed by the *Honorary Secretary*, and seconded by Mr. W. V. Reilly, was duly elected.

Telephones.—The Honorary Secretary explained the present position, with reference to Telephones, and the meeting expressed itself in agreement with Mr. J. H. Ireland-Jones' suggestion that the delegates to the Upasi Annual Meeting shall interview the Divisional Engineer, Telegraphs, when in Bangalore, obtain full information as to cost of installation, annual cost and operators' salaries, and report to the Association at a later date.

Upasi Annual Meeting.—Read copy of the Agenda for the Annual Meeting of the U.P.A.S.I., and letter No. 3137, of July 21, 1925, from the Secretary, U.P.A.S.I., with reference to special resolution to be moved by the Mysore Planters' Association. The meeting, in Committee, fully discussed the Agenda, and the delegates were given necessary instructions.

Upasi Sports Club.—With reference to the recent notice in the *Planters' Chronicle*, anent the appointment of a district representative, Mr. A. V. Danagher proposed that Mr. D. Cooper be elected. This, on being seconded by Mr. P. E. Achard, was carried unanimously.

Read letter from the Honorary Secretary, Upasi Sports Club, dated June 19, 1925, requesting payment of subscription for 1924 and 1925. The meeting was in favour of paying this subscription, and also subscription for 1925-26, and the Honorary Secretary was instructed accordingly.

Rates of Pay of Estate Gang Coolies.—Read circular from the Secretary, U.P.A.S.I., anent Labour Rule No. XIII, and the notice given by the Kanen Devan Planters' Association for the increase of pay of estate gang coolies receiving no advance.

After considerable discussion, it was agreed that the matter be left to Mr. Pittock, to place before the Coimbatore Control Committee, with a view to obtaining a definite ruling, as regards any such coolies recruited in the Coimbatore Division.

Ropeway.—The Chairman advised the meeting that he and the Honorary Secretary, had recently visited the foot of the Ghaut, met the Assistant Karnam of Kottur Village, and obtained information as to the ownership of the land at the lower end of survey made by Messrs. Gillanders, Arbuthnot and Co., Agents for the British Ropeway Engineering Co., Ltd., such information having been called for by Messrs. James Finlay and Co., Ltd.

Railway.—Read the following correspondence:—

1. Letter from Mr. F. B. Evans to the Planting Member of Council, dated June 22, 1925.

2. Copy of letter No. 4 C/S/4994/5/8, dated June 12, 1925, from the Agent, South Indian Railway, to the Secretary to Government of Madras, Public Works Department.

3. Copy of letter from the E. & S. Co-operative Wholesale Societies, Ltd., to Mr. W. Ogilvy, dated July 11, 1925.

4. Copy of Mr. Ogilvy's reply to above.

5. Letter from the Chairman to the E. & S. Co-operative Wholesale Societies, Ltd., dated June 21, 1925.

6. Letter from the E. & S. Co-operative Wholesale Societies, Ltd., to Mr. W. Ogilvy, dated July 24, 1925.

The following resolution, proposed by Mr. Ogilvy, and seconded by Mr. W. V. Reilly, was carried unanimously :—

'That this Association, while regretting that there seems little prospect of the immediate construction of the much-needed Chalakudi-Valparai Railway, reiterates its opinion that such a railway is the only ultimate satisfactory solution to the traffic problems of the district and decides, in the meantime, to give its hearty support to the proposed ropeway from Iyerpadi to Vananthorie. This Association, however, considers that the question of the railway should always be kept in view and not be allowed to drop.'

Proposed Farm at Foot of Ghaut.—Read application from Mr. S. R. Lakshman, Veterinary Surgeon, to the Collector of Coimbatore (per favour of the Association), for 150 acres of land at the foot of the Ghaut, for the purpose of opening a farm also : application for one acre of land on the Township.

The meeting was in favour of supporting the former of these applications, the latter to be allowed to stand over until it is seen what progress is made with the proposed farm.

CORRESPONDENCE

'*Madras Mail*'.—Read and recorded letter from the Pollachi Correspondent of the *Madras Mail*.

Car Hire.—Read letter from Mr. Ogilvy, requesting payment of the sum of Rs. 195 for car hire, from funds provided for same at the recent Annual Meeting. The Honorary Secretary advised the meeting that the sum of Rs. 351 had already been paid to Mr. Lloyd, and that there was available a sum of Rs. 49 only. The Chairman proposed that the Honorary Secretary's payment of Rs. 351 be confirmed, and that the available balance be paid to Mr. Ogilvy. (*Carried unanimously.*)

Chatrams.—Read letter from Mr. Govinda Menon, Care-taker and shop-keeper at the Chatram at mile 14.6. The Chairman requested managers to advise their labour that accommodation was available for their coolies.

Mr. Pittock suggested that a subsidy should be paid to the present care-taker, should he be in charge at the end of twelve months.

The Chairman explained that he was now endeavouring to obtain a suitable compounder, to take charge of the Chatram, and Mr. Ogilvy, as President of the Medical Association, kindly agreed to give any necessary assistance in connection with the issue of medicines.

Mr. Ireland-Jones complained of delay in advice as to coolies arriving at the L. F. Hospital, and the Honorary Secretary explained that he had already taken up the matter with the Chief Medical Officer.

The meeting was of opinion that the Chief Medical Officer should be requested to refuse admission to all coolies other than those genuinely sick : also, that the contractor should be advised that delivery of sick coolies must be made direct to the L. F. Hospital, without any delay at Iyerpadi.

With reference to the proposed Chatram at Angalakurichi, the Chairman explained that, in view of a house having been built upon the piece of land originally applied for, a similar and slightly smaller piece of land to the west of this original application would probably be allotted. This piece of land would include the well originally asked for, but omit the house.

Posts and Telegraphs.—Read and recorded letter from the Postmaster-General to the Chairman, dated June 24, 1925, No. A. 785.

The Honorary Secretary referred to the unnecessary delay in delivery of letters from one estate to another, and referred to his letters of July 8 and 22, to the Superintendent of Post Offices, Nilgiri Division, Ootacamund, to which nothing but a mere acknowledgement had been received in reply. The following resolution, proposed by Mr. Ogilvy, and seconded by Mr. Hardy, was carried unanimously :—

‘ That this Association views with much dissatisfaction the great delay in delivery of local letters, many of which are of vital importance, and would request the Postmaster-General to use his influence to ensure that all local letters posted before collection time should be forwarded on the same day as they are received at the Valparai P. O’.

Labour Department Control Committee.—Mr. Pittock, as representative of this Association on the Control Committee for the Coimbatore Division, asked for criticisms on the working of the present scheme, and for suggestions as to any possible improvements. Certain criticisms and suggestions were put forward, and Mr. Pittock very kindly offered to be at the Club at stated intervals, for the purpose of meeting managers and obtaining information which will be of use to him at future meetings of the Control Committee.

Control of Malaria.—Mr. Pittock read some interesting notes in connection with this subject, with extracts from papers read by such experts in Malaria as Sir Ronald Ross and Sir Malcolm Watson.

The meeting considered that, in view of the approaching alterations in the medical affairs of the district, the matter should be allowed to remain in abeyance. In the meantime the meeting was of opinion that the Association should approach some such expert, with a view to knowing at what cost advice on this important matter would be obtainable.

J. E. SAMPSON,
Honorary Secretary.

F. SIMMONS,
Chairman.

WYNAAD PLANTERS' ASSOCIATION

(INCORPORATED)

Proceedings of an Ordinary General Meeting held at Meppadi Club on Wednesday, August 5, 1925.

Present

Mr. B. M. Behr (*Chairman*), Messrs. Anderson, Swayne, Mackay, Powell, Gauld, Craig, Sullivan, Strachan, Lang, Davies, Bates, Gwynne, Bisset, Leslie, Boulton, Peachy, Haynes, Reynolds and Finlayson (*Honorary Secretary*).

1. The notice convening the meeting was read.

2. The proceedings of the last meeting were taken as read and confirmed.

3. Resolution to alter Articles of Association of W. P. A. Proposed from the Chair.

'That to Article 8 of the Articles of Association be added the clause

- (a) In the event of a member selling an estate or a portion of an estate in respect of which he has been admitted to membership of the Association, if the purchaser of such estate or portion thereof shall apply to the Association for admission to membership, then and in such case the member so selling shall be entitled, as from the date on which the said purchaser applies for admission to membership, either to retire if his whole estate is sold, or if he still retains an estate or portion of an estate to remain a member but with a liability to pay such reduced subscription as may be due in respect of such estate or portion of an estate so retained by him, but he shall be released from liability to pay any subscription in respect of the estate or portion of an estate so sold by him as from the date on which the purchaser applies for admission to membership.

Provided always that if such purchaser shall not apply for admission to membership of the Association, the member so selling shall continue to be liable to pay subscriptions until after the expiration of six calendar months' notice in writing of his intention to retire. Such notice may be given at any time to the Secretary.

- (b) In the event of the death of a member his legal representatives shall be entitled to give three calendar months' notice at any time in writing to the Secretary terminating their liability to pay all further subscription to the Association after the expiration of the said notice.

Any member other than a personal member desirous of retiring as at the 31st day of March, 1924, shall give notice in writing of his intention to the Secretary not later than the 31st day of March, 1923. After the 31st day of March, 1923, any member desirous of retiring shall give one year's notice in manner

aforesaid, such notice to expire only at the end of a current financial year of the Association.

This resolution was passed unanimously.

4. Read Article 4 of the Articles of Association and it was recorded that in the opinion of this Association Assistant Superintendents were authorized agents of their employers and therefore members of this Association.

5. *Instructions to Delegate to Bangalore.*—The Chairman was elected as delegate to the Annual General Meeting.

The Agenda of the Annual General Meeting was read through and the delegate instructed.

6. *Labour Rules.*—It was agreed these should be referred to the Labour Committee. Read a circular from Director, Labour Department, *re* raising of pay for estate gang coolies by the Kannan Devan Planters' Association.

Mr. Davies was elected a member of the Labour Committee in place of Mr. Eyre (on leave).

7. Read letters *re* Sankaran Butler, notice of withdrawal of Kuppamudi Estate, and application by Capt. D. N. Pitcairn for membership.

Proposed by Mr. Davies that Capt. D. N. Pitcairn be elected a member of this Association.

Seconded by Mr. A. L. Lang.

Carried unanimously.

8. *Roads.*—The following resolution was proposed by Mr. Gwynne and seconded by Mr. Bisset :—

‘That this Association views with alarm the state of the roads between Chundale Bazaar and Sholadi Bridge and would ask the District Board Engineer to visit the district without delay and arrange to put the work of repairing the road in hand at once, as the quality of the work (i.e. spreading metal) now being done is very bad.

The Association also trusts that the Engineer will give notice of his visit to the Chairman so that an interview can be arranged.’

Carried unanimously.

The Honorary Secretary was asked to call the attention of the Circle Inspector of Police to the obstruction caused on the road by the halting of carts at places not authorized for cart stands.

The meeting terminated with a vote of thanks to the Chair.

(Sd) I. W. Finlayson,
Honorary Secretary.

(Sd.) B. M. BEHR,
Chairman.

BANGALORE—CENTRAE HOTEL, ‘The best in the Station’.

EXPORTS OF TEA, COFFEE AND RUBBER FROM SOUTH INDIAN PORTS DURING JUNE, 1925

From	To ports in India	Ceylon	United Kingdom	Europe (excluding United Kingdom)	Asia (excluding India and Ceylon)	Africa	America	Australia
<i>Tea—</i>								
Madras	19,360	...	3,95,947	85	1,090	...	...	...
Calicut	11,012	73,420	16,76,640	...	...	420	1,800	...
Cochin	...	3,92,098	17,96,904	...	...	...	...	...
Tuticorin	...	7,580	...	...	...	...	...	...
Alleppey	...	...	...	...	...	...	...	...
Total	30,372	4,73,098	38,69,491	85	1,090	420	1,800	...
Previously	83,782	6,27,952	57,32,360	10,50,214	2,069	200	17,160	...
Total lbs. since 1-1-25.	1,14,154	11,01,050	96,01,851	10,50,299	3,159	620	18,960	...
<i>Coffee—</i>								
Madras	392	...	647	...	7	...	...	...
Cochin	...	...	38	...	...	...	...	...
Tellicherry	...	...	...	583	...	...	...	...
Bombay	...	...	...	...	677	...	...	...
Total	392	...	685	583	684	...	...	...
Previously	14,225	34	1,09,113	82,281	27,173	...	503	7,232
Total cw/s. since 1-1-25.	14,617	34	1,09,798	82,864	27,857	...	503	7,232
<i>Rubber—</i>								
Madras	...	...	30,495	...	...	...	...	...
Calicut	...	45,684	...	...	...	...	...	...
Cochin	...	3,96,576	2,66,299	...	...	...	33,700	...
Tuticorin	...	1,30,734	74,536	2,240	...	...	...	...
Alleppey	...	45,696	...	...	...	...	...	...
Total	...	6,18,690	3,71,330	2,240	...	...	33,700	...
Previously	1,684	21,03,739	20,56,023	76,413	753	12,244	8,43,281	...
Total lbs. since 1-1-25.	1,684	27,22,429	24,27,353	78,653	753	12,244	8,76,981	...

COMMERCIAL AND METEOROLOGICAL

I. The Rupee Exchange for the week ending August 8, 1925

Bank Selling Demand Draft on London

3rd	4th	5th	6th	7th	8th
18 3/32d.	18 3/32d.	18 3/32d.	18 3/32d.	18 3/32d.	18 3/32d.

II. Summary of latest Market Reports and Prices to hand :—

(a) Some of the higher London Prices—

Highest prices realized on the London Market			Average prices obtained for tea			
Mark	Pkgs.	Price	District	Week ending July 18, 1925	January 1 to July 18, 1925	January 1 to July 18, 1924
(1) TEA (WEEK ENDING JULY 18)		s. d.		s. d.	s. d.	s. d.
(a) <i>Anamallais</i> —						
Sholayar ...	192	1 5½	N. India.	1 4·68	1 5·33	1 5·59
(b) <i>Central Travancore</i>			S. India.	1 5·91	1 6·52	1 6·10
Fairfield ...	76	1 6½	Ceylon...	1 7·13	1 7·90	1 7·76
Glenmary ...	63	1 6½	Java ...	1 0·98	1 0·93	1 2·41
(c) <i>Kanan Devans</i> —			Sumatra.	Nil	1 4·46	1 4·47
Periavurri ...	178	1 10½	Nyassa-	Nil	1 1·61	1 4·14
Yellapatty ...	120	1 10½	land.			
Gundama ...	113	1 10½				
(d) <i>Mundakayam</i> —						
Yendayar ...	161	1 3½				
Orkaden ...	102	1 3				
(e) <i>Nilgiris</i> —						
Thiashola ...	110	1 10				
Woodlands ...	82	1 7½				
(f) <i>Nilgiri-Wynaad</i> —						
Devarashola ...	66	1 6½				
Woodbriar ...	68	1 5½				
(g) <i>South Travancore</i> —						
Merchiston ...	97	1 3				
(2) NO. 1 COFFEE (WEEK ENDING JULY 18)						
Honnametti (Mysore).	85	136				
Hallacarry (Nilgiris).	12	127				
			Total	* 1 5·53	† 1 5·81	‡ 1 5·97

* Average based on 72,444 packages.

† " " " 1,591,244 "

‡ " " " 1,611,193 "

(b) *Precis of reports on London Markets received on August 10 and covering the week ending July 18—*

(1) *Tra.*—The South Indian average is down by over 2*d.* this week as compared with last. The rise of $\frac{1}{2}$ *d.* to 1*d.* per pound which we were able to record last week was followed during the week now under review by a corresponding drop; and only prices of the very best types remained firm. Demand however was good, and practically everything put up to auction was sold.

(2) *Rubber.*—A further rise in 'Spot' took place, and as much as 4/6½*d.* was paid. A reaction occurred owing to speculators releasing their holdings; and 'Spot' declined by about 2*d.*, while October-March deliveries were cheaper by as much as 6*d.* a pound. Later again however prices recovered and there was every indication of renewed interest by the Trade.

(3) *Coffee.*—There is no change to report in the market; for the buyers, though still ready to pay high prices for really fine coffee, e.g., 197*s.* was paid for Bold Costa Ricas, have little use for medium to common sorts.

III. Weekly Rainfall Statement

From April 1, 1925, up to and including Saturday, August 8, 1925

Stations are arranged in order approximately south to north and those not in planting districts are shown in small capitals.

Stations	W.	P.	Total	Stations	W.	P.	Total
1. Kalthuritty.	7·26	42·68	49·94	17. Coonoor ...	0·06	12·27	12·33
2. Tenmalai ...	8·49	44·65	53·14	18. Kotagiri ...	1·79	13·00	14·79
3. Mundakayam.	12·82	88·38	101·20	19. Ootacamund	0·42	22·17	22·59
4. Peermade...	15·83	88·43	104·26	20. Yercaud ...	3·34	18·39	21·73
5. V'periyar ...	N.R.	39·29	N.R.	21. Devala ...	N.R.	74·28	N.R.
6. Kalaar ...	20·83	113·74	134·57	22. Gudalur ...	2·06	45·05	47·11
7. Chittuvurrai	0·62	18·01	18·63	23. CALICUT ...	5·64	83·30	88·94
8. BODI'KANUR	0·09	5·26	5·35	24. Kuttiyadi ...	10·99	104·85	115·84
9. COCHIN ...	6·82	60·31	67·13	25. Vayittiri ...	6·55	102·55	109·10
10. Mooply ...	8·67	61·56	70·23	26. Manantodi...	4·65	70·70	75·35
11. Pachaimalai	5·73	69·17	74·90	27. Billigiris ...	7·26	25·63	32·89
12. Mudis ...	5·78	109·83	115·61	28. Sidapur ...	1·25	46·39	47·64
13. POLLACHIE.	0·37	10·91	11·28	29. Somwarpett	1·08	48·62	49·70
14. Manjeri ...	5·85	70·93	76·78	30. Ballupete ...	0·70	49·24	49·94
15. Nilambur ...	3·23	58·68	61·91	31. MANGALORE.	10·29	95·07	105·36
16. Naduvattam	2·39	48·99	51·38	32. MADRAS ...	3·10	8·13	11·23

W = During the week.

P = Previously.

N.R. = No return.

The Planters' Chronicle

Recognized as the Official Organ of the U. P. A. S. I. (Incorporated)

Managing Editor's Postal Address : POST BOX 155, MADRAS

Do. do. Registered Telegraphic Address : UPASI, Madras

VOL. XX, NO. 34] SAT., AUGUST 22, 1925 [PRICE, AS. 8

CONTENTS

	PAGE		PAGE
Editorial Notes ...	611	South Travancore Planters' Association Second Quarterly Meeting ...	627
India's Fields and India's Schools ...	613	District Notes ...	628
Resolutions of General Meeting of U.P.A.S.I. ...	616	Mundakayam Planters' Association Second Quarterly Meeting ...	629
Nilgiri Planters' Association General Meeting ...	625	Commercial and Meteorological ...	631

EDITORIAL NOTES

'The Stevenson Scheme', says *Truth*, 'has been in force for a little over 2½ years; and during 2½ years of that period the price of rubber has averaged under 1s. 3d. per pound. Against this it is only fair to state that during the 10 years preceding the war the average price of rubber was 5s. 6d. and in April 1910 the price touched 12s. 10½d. On the face of it our American friends have little to complain of, as the present situation has been brought about by their own blundering tactics. Did they not, by deliberately adopting a hand-to-mouth buying policy, so depress the price of rubber that the exportable allowance had to be reduced on August of last year to 55 per cent, and on November 1 to 50 per cent ?

Had American manufacturers bought with merely sufficient freedom to retain their normal domestic stocks the price of rubber need never have fallen below 1s. 3d., and in that case additional releases of 5 per cent per quarter would have been secured throughout the restriction period. The leading authority on this subject tells me that such regular quarterly releases would have provided in all about 185,000 tons more rubber than exists to-day.

Surely it is monstrous for American manufacturers to throw the blame on the Stevenson Scheme, when in an effort to make that scheme unworkable they wilfully depleted their own stocks and by abstaining from normal buying reduced the price of rubber at one time last year to 9½d. per pound.

We publish below the Rubber Association of America's estimate of world consumption and production of rubber, and alongside it to facilitate comparison that of Mr. A. W. Still which has appeared already on page 580 of our issue of August 8.

YEAR	WORLD PRODUCTION IN TONS		WORLD CONSUMPTION IN TONS	
	R. Association of America	A. W. Still	R. Association of America	A. W. Still
1925	574,000	501,000	540,000	486,802
1926	606,000	{ Probably equal to consump- tion }	575,000	555,604
1927	623,000		608,000	624,406
1928	633,000		641,000	693,208
1929	637,000	700,000	672,000	762,010
1930	641,000	700,000	703,000	830,812
Total	3,714,000	3,774,218	3,739,000	3,952,842

The Rubber Association of America and Mr. Still therefore respectively estimate the shortage for the sexennium 1925-30 at 25,000 and 178,624 tons.

Some of the over-venturous 'bears' have been badly caught in the recent rubber boom. They sold freely in the belief that the 'Bears' over- Emergency-Release Campaign in Parliament and the Daily borne Press was bound to bring prices down. To their chagrin they found on trying to cover their commitments that an increased trade demand from the States and the Continent had forced prices up. Furthermore, that the major portion of stocks actually in London are already bought and merely awaiting delivery, and that even a large portion of the forthcoming landings has also been sold. Would-be buyers are at their wit's end in London; and apparently beyond them in New York, where 'spot' has jumped to over 5s. a pound.

The countries which enjoy British suzerainty often malign it, but they change their tune surprisingly quickly when faced with a practical possibility of that suzerainty being renounced. *Wind bags Mosul is the latest case in point. The Commission appointed by the League of Nations has ascertained that that country has no delusions whatever about either Turkish or Iraqi untrammelled control. It wants neither; but would prefer, or rather be less adverse to, the former if it has to decide for one of the two. But it would emphatically prefer to remain under the latter if it, i.e., Iraq, continued to be subject to the control of the League of Nations or in other words the British (who are the League's mandate holders) and was not recognized as an independent*

power. This means that the people of Mosul though they prefer Turkish to exclusively Iraqi overlordship would not prefer it if only the Iraqi overlordship was exercised under British supervision and control.

The Young Idea The General Manager of the Wariyapola and Kandenuwara Estates in Matale (Ceylon) is according to the *Ceylon Observer* providing the children of his labourers with free midday meals and all facilities for athletic games. The Inspector-General of Police has lent the services of a police sergeant, who puts the boys—who number over fifty and are between seven and fourteen years of age—through a course of Physical Training and Swedish Drill Exercises twice a week. The drills are designedly of a recreative character and are reported to be appealing very strongly to the little cooly boys.

Migrant Man Power The emigration of estate labourers to Ceylon proceeds apace. Last year's record of 154,000 souls has not been followed by a slump in recruiting and it is anticipated that 100,000 coolies will leave South India for Ceylon during the current year.

A Standard Wage We understand that a Labour Code embodying 35 cents and 27 cents as the standard minimum wages for male and female adults respectively has been enacted in the F. M. S. An experimental enforcement of the enactment in the Kuala-Selangor District however has apparently disclosed practical difficulties in the application of the regulation, and the Indian Immigration Committee are now investigating these. In Ceylon nothing appears to have been definitely settled yet with regard to a standard wage. The opinions of some of the District Associations are in conflict and have to be reconciled; and, while the Parent Association is attending to this aspect of the problem, Mr. S. Renganathan, I.C.S., the Agent of the Government of India in Ceylon, has gone to Simla to place the whole position before The Powers that Be.

For Those on Furlough We are able to state that Mr. and Mrs. H. L. Pinches have just spent four months at the Hydro Hotel, Caterham, which is advertised on page xviii of this issue, and on the conclusion of their lengthy stay gave the proprietor a very warm testimonial to the excellent way in which the Hydro is run. We have received a few illustrated booklets regarding the Hotel, and shall be pleased to send one on application as long as our supply lasts. We note from the booklet that the inclusive rates are from 4 guineas a week with a reduction for a prolonged stay.

Matters Marine We are informed, in supplementation of our editorial note on page 562 in our issue of the 8th instant, that Messrs. Harrisons and Crosfield are the Agents of the Bibby Line at Quilon and Cochin.

INDIA'S FIELDS AND INDIA'S SCHOOLS

The tumult and the shouting do not die. Polemical clamouring proceeds apace. The voice of the politicians is not stilled. But it is very largely if not entirely divorced from reality. Both men and women (for have we not our Mesdames Sarojini Naidu and Besant?) are simply players, and their platform is but a stage. The lime light beats more on the leading

performers, and less on the minor characters, but not at all on the voiceless crowd in the auditorium, which is eight or nine times as numerous as the cast on the stage. Melodrama at a considerable remove from the realities of life occupies the boards: the real tragedy inherent in and native to the audience is repressed. Make-believe, not reality carries the day. Strain they their eyes ever so intently, the spectators see little which bears on the problems besetting them in their every-day life.

Old rulers fall, new rulers rise.
 God to this one and that a kingdom flings.
 But to us, the humble folk of the soil
 Who till the crops which their armies spoil,
 Enough is our labour, our simple toil,
 Small care have we for kings.

Yet slowly but surely *nous changons tout ceci*. Since 1905 the Government Agricultural Department has been doing unobtrusive but invaluable work; isolated but authoritative voices like Dr. Gangulee's have been crying in the wilderness; and now at last no less a person than the Secretary of State for India appears to realize that this country is not merely a conglomeration of vociferous and too often dronish town-dwellers but contains mute and toiling ryots as well.

The speech of the Chairman of the U.P.A.S.I. which has been published this week in the press shows that he too is fully alive to the importance of a new orientation towards scientific Agriculture as a Factor in the country's weal. Indeed he could scarcely fail to be so, for the community he represents is in the van of the workers in this field. As shown in the report of their Executive Committee which has also been published in the press, it expends a large sum of money on a Scientific Department which is doing extraordinarily fine work.

It would indeed be well for the country if legislators took as much interest in and provided as much money as the Planters for Agricultural Research. Agriculture is, and so far as one can see will always be, the premier industry of India, but yet whenever Industrial Development is broached in our Legislative Councils, it is almost always something other than Agriculture which the speaker has in mind.

Again little has been done, towards creating a generation of ryots which will be able to assimilate the mass of knowledge—wonderfully comprehensive when compared with its splendour resources—to which the Agricultural Department can point as the outcome of its unceasing research.

The department indeed has fostered agricultural science, but the ryot alone can develop agricultural art. The relationship subsisting between the Agricultural Expert and the cultivator should be that which obtains between Astronomer and Navigator, between Mathematician and Engineer. Academical agriculture has still to be 'got across' to the masses; or, in other words, the gap between it and applied agriculture has yet to be bridged. The majority of even the large and land owners and of course a *fortiori* the totality of the small cultivators, is largely inarticulate, and unable to express its requirements with precision and force, and therefore precluded even if it would from co-operating adequately with the Agricultural Department's staff. A recent 'Round

Table' resumé of the Indian Situation concludes with the following words :—

'The actual teaching in the village school must be adapted to the needs of village life. The present system of primary education is really based on the requirements of the city child and there is little love for it in the villages. . . .

'There should be a rural school within reach of every village child in India. Land will be needed for a garden, for in it the children must learn to use the best seed and the best methods. When the parents see that the school crops are better than their own, their interest will also be aroused, and they too will demand to be taught. That is where the agricultural adviser or demonstrator, who has done so much to improve the standard of crop production in America, will come in. A graduate of an Agricultural College, he takes improved seed and persuades the adult farmer to follow his directions on his own farm. In this way self-confidence is developed, for it is the farmer himself who secures the results. The demonstrator will also tell the people about machines which will reduce labour and costs and at the same time increase the yield and the profits. Such machines are often beyond the reach of a single farmer, but a small co-operative group could buy them and put them to a profitable use. The idea of working together should be applied not only to buying and selling, but to every kind of social activity. In this way *esprit de corps* and sectional loyalty will be developed.

'The school should also be centre for the spread of medical knowledge. Preventive medicine is especially needed to forestall diseases, such as leprosy, hookworm, malaria, enteric and dysentery, which to-day not only kill a number of people, but are also a direct cause of industrial inefficiency and economic waste.'

This if we remember rightly is the conclusion (rather unexpected as coming from a Missionary Educationalist) at which Dr. Whitehead, a former Bishop of Madras, arrived in his interesting and very favourably-reviewed book on the Indian Situation, which we read on its publication last year. We have not a copy of the book by us, but recollect that he deprecated the system of educating (or perhaps rather instructing, for education in the true derivative sense of the word is an unknown quantity in many Indian schools) up to sixth form standard a multitude of youths, who not only are unable to find clerical openings, but would prove incapable of filling them satisfactorily even if they were to be had.

On the one hand therefore we have a grievous lack of trained cultivators, and on the other a superabundance of inefficient clerks.

A stream, unharnessed, can but bear its waters into an ocean which has no lack of water : diverted it can be made to actuate machinery and to fertilize barren tracts.

Similarly the stream of Indian youth unharnessed, is pouring would-be Vakils, Government Servants, and Office Employees into the cities where such already teem to excess : dammed by say a proficiency bar about the third form, and diverted into suitable *ad hoc* channels, it might prove a much-needed enricher of the National, Agricultural, Engineering, Industrial and Technical life.

RESOLUTIONS**MOVED AT THE****THIRTY-SECOND ANNUAL GENERAL MEETING****OF THE****U. P. A. S. I.****FIRST DAY—MONDAY, AUGUST 17, 1925****The Executive Committee's Annual Report**

1. Proposed by the Chair :

'That the Executive Committee Report be and is hereby adopted.'

Carried.

The Benevolent Fund Accounts

2. Proposed by Mr. O. J. Egan-Wyer and seconded by Mr. C. E. M. Browne :

'That the Balance Sheet of the Southern India Planters' Benevolent Fund be published separately in future.'

Lost.

3. Proposed by Mr. A. K. Weld-Downing and seconded by Mr. J. A. Richardson :

'That the S.I.P.B. Fund Accounts continue to be included in the U.P.A.S.I. Accounts as at present.'

Carried.

The U.P.A.S.I. Accounts

4. Proposed by the Chair :

'That the accounts be adopted.'

Carried.

SECOND DAY—TUESDAY, AUGUST 18, 1925**The Factories' Act**

5. Proposed by Mr. J. A. Richardson and seconded by Mr. A. K. Weld-Downing :

'That this meeting favours the exemption of tea factories from Clauses 27 and 28 of the Factories' Act for periods not exceeding in the aggregate ten days per month during certain months in the year.'

Carried unanimously.

The European Electorate

6. Proposed by Mr. B. M. Behr and seconded by Mr. R. Fowke:

'That District Associations are strongly advised to bring their Electoral Rolls up to date as at present these are very incomplete and the European Electorate is not making the most of its political influence.'

Carried unanimously.

Inaccurate Encumbrance Certificates

7. Proposed by Mr. J. A. Richardson and seconded by Mr. J. E. Sampson:

'That the U.P.A.S.I. draw the attention of the Registrar-General to this case and ask for a definite ruling on the point and if necessary consult the Association's Solicitors on the matter.'

Carried unanimously.

The Labour Department

8. Proposed by the Chairman:

'That the Report of the Director of the Labour Department be adopted.'

Carried 'nem con.'

9. Proposed by Mr. E. W. Fowke and seconded by Mr. L. Newcome:

'That the Director of the Labour Department's Annual Report be printed in the Book of Proceedings.'

Carried unanimously.

10. Proposed by the Chair:

'That the rescinding of Rules XIX and XX of the Upasi Labour Rules and the addition made to Rule XIV by the General Committee on August 17, 1925, are confirmed.'

Carried.

An Unfounded Statement

11. Proposed by Mr. E. W. Fowke and seconded by Mr. W. B. Bucknall:

'That an unqualified, public withdrawal of the Passage XXX contained in No. 5 of Vol. 6 of *The Indian Scientific Agriculturist* be called for from the Editor and Publisher of the said Journal; and, should they refuse, the matter be referred to the Solicitors of this Association.'

Carried unanimously.

Passage Money for Wives

12. Proposed by Mr. W. A. J. Milner and seconded by Mr. J. S. B. Wallace :

'That in the case of married European Employees of the Labour Department going home on leave passage money for their wives should be granted on the recommendation of the Control Committee concerned.'

Lost.

13. Proposed by Mr. F. G. Millar and seconded by Mr. O. J. Egan-Wyer :

'Amendment to Mr. Milner's proposal :

'That the question of free passage to the wives of European Employees of the Labour Department be referred back to the local Associations for consideration as many Delegates of this meeting have no instructions on the matter.'

Carried.

Scientific Department

14. Proposed by Mr. E. H. A. Travers Drapes and seconded by Colonel W. B. Bucknall :

'That the Sidapur Experimental Station be closed down by July 31, 1926, or as soon as the required materials and specimens can be removed to the new Experimental Station in Mysore.'

Carried unanimously.

15. Proposed by Mr. L. Newcome and seconded by Mr. E. H. A. Travers Drapes :

'This Association tenders its hearty thanks to the Government of Mysore for their efforts to improve scientifically the prospects of coffee-growing, in their own State and other States and Provinces.'

Carried unanimously.

16. Proposed by Colonel W. B. Bucknall and seconded by Captain E. H. A. Travers Drapes :

'This Association agrees to support financially the Mysore Coffee Experimental Farm according to such funds as may be placed at its disposal for the purpose.'

Carried unanimously.

17. Proposed by Mr. E. W. Fowke and seconded by Mr. F. Simmons :

'That in view of the determination of the Mysore Government to establish and carry on an Experimental Farm for Coffee and minor Planting Products, the two anna Cess on Coffee be continued.'

Carried unanimously.

18. Proposed by Mr. C. E. M. Browne and seconded by Mr. F. G. Millar :

'That this Association places on record its appreciation of the services rendered by Mr. Ashplant.'

Carried unanimously.

19. Proposed by Mr. O. J. Egan-Wyer and seconded by Mr. C. E. M. Browne :

'My Association wishes to record its gratification at the reappointment of Mr. Ashplant for another term.'

Carried.

THIRD DAY—WEDNESDAY, AUGUST 19, 1925

Personal Membership of District Planters' Associations

20. Proposed by Mr. R. Fowke and seconded by Mr. B. M. Behr :

'This meeting recommends that the rate of personal subscription to all District Associations should be made uniform and would suggest the rate of five rupees ; which covers the free issue of the Book of Proceedings and of the *Planters' Chronicle*.

Carried 'nem con.'

'The Planters' Chronicle'

21. The Chairman proposed :

'A hearty vote of thanks to Mr. Edwin Vincent for ably editing the *Planters' Chronicle*.

Carried with acclamation.

Indian Employees' Provident Fund

22. Proposed by Mr. B. M. Behr and seconded by Mr. F. Simmons :

'That the formation of an Indian Employees' Provident Fund be postponed until the Combined Control Committee can give its opinion of the scheme to the Association.'

Carried 'nem con'.

The U.P.A S.I. Buying Agency

23. Proposed from the Chair :

'That the following amendments to the Rules of the Upasi Buying Agency accepted by the General Committee at a meeting held on March 25, 1925, be hereby confirmed :—

- (1) That the following words be added to Rule IV :—'and all renewals shall date from the expiry of the previous ticket, in no case shall any allowance be made for absence on leave or any ticket be issued for a period of less than twelve months.'

- (2) That a new Rule be added as follows:—'In no case shall the Secretary act as Agent of a member in any business connected with the Agency.'

Carried unanimously.

The Nilgiri Nursing Home.

24. Proposed by Mr. R. Fowke and seconded by B. M. Behr :

'Resolved that the War Memorial Tablet in the Nilgiri Nursing Home be transferred to Madras and placed in the office of U.P.A.S.I. '

Withdrawn.

25. Proposed by Mr. L. Newcome and seconded by Mr. E. W. Fowke :

'That the General Committee of the Combined Association in Madras be requested to agree to the transfer of the Planters' War Memorial Tablet from Ootacamund to the Lady Amphill Nursing Home, Madras.

Carried unanimously.

The Empire Planters' Club

26. Proposed from the Chair :

'That Mr. Mackenzie's letter *re* Empire Planters' Club be recorded.'

Carried.

S. I. R. Demurrage Fees

27. Proposed by Mr. E. H. A. Travers Drapes and seconded by Mr. A. K. Weld Downing :

'That this Association approach the S. I. Railway Administration through the Railway Board and ask for the support of the Chamber of Commerce, Madras, with a view to obtaining an extension of seven days' free wharfage (instead of twenty-four hours as at present) on goods consigned to Planters, at the following stations:—

Salem Junction.

Kadiampatti.

Bomidi.

Carried unanimously.

The Rubber Growers' Association

28. Proposed by Mr. F. G. Millar and seconded by Mr. J. A. Richardson :

'That the *amended* scheme *re*: R.G.A. Local Committee—South India be accepted with the exception of the first para of Section 3 B. relating to Research Finance and that second para of Section 3B be altered to read as follows:—

'The Secretary, U.P.A.S.I., to arrange for periodical Progress Reports and other Special Reports as may be considered

'advisable to be furnished by the Rubber Research Staff, such reports to be for the Local Committee, while copies to be forwarded to the R.G.A. in London. The Secretary, U.P.A.S.I., also to arrange for the interchange of these progress and other reports with the Rubber Research organizations in Malaya and Ceylon.

'Also under No. 2D the Malabar District be included.'

Further the Secretary, U.P.A.S.I., be requested to communicate with West Coast, Mundakayam and South Travancore Planters' Associations with regard to the election of the members of the Committee as laid down under Clause No. 2A Constitution.

Carried 'nem con'.

29. Proposed by Mr. F. G. Millar and seconded by Mr. C. E. M. Browne :

'Regarding the Constitution of the R.G.A. Local Committee, South India, it is proposed that Mr. Patch be hereby elected the representative of the mercantile interests on this Committee.'

Carried unanimously.

30. Proposed by Mr. F. G. Millar and seconded by Mr. H. Cheslie :
Amended proposed scheme R.G.A. Constitution—

'In Clause 2A after "U.P.A.S.I." add the words "at the time of the Annual General Meeting" casual vacancies to be filled by the Executive Committee.'

Carried unanimously.

The Willingdon Home and Nurses' Institute

31. Proposed by Mr. R. Fowke and seconded by Mr. B. M. Behr :—

'In view of the decision to close the Nilgiri Nursing Home and sell the Buildings our representative on the Madras General Committee of the Lady Ampthill Nurses' Institute and the South Indian Nursing Association be requested to press in that Committee that the interest of the money realized by the sale of buildings referred to, be devoted to reducing the fees of the Willingdon Home and Lady Ampthill Nurses' Institute to all members of the South Indian Planting Community who served in the Great War, thus remaining in harmony with the original intentions of this Association that the benefit from the memorial should be enjoyed solely by them.'

Carried.

32. Proposed by Mr. C. E. M. Browne and seconded by Mr. O. J. Egan-Wyer :—

'That the paragraph in the above Resolution to the effect that the benefits of reduction of fees be enjoyed only by Planters who served in the Great War be deleted as these Members already enjoy the use of the Institution without payment of subscription.

Lost,

Communications

33. Proposed by Mr. J. A. Richardson and seconded by Mr. C. E. M. Browne :

'That this Association make urgent representation to the Government of Madras that the widening of the Shoranon Ernakulam Railway be undertaken and proceeded with, with the least possible delay.

Carried unanimously.

34. Proposed by Mr. W. B. Bucknall and seconded by Mr. E. W. Fowke :

'This Association calls the attention of the Government of Madras to the bad state of roads and bridges between Coorg and the coast ports of Tellicherry and Mangalore and requests that steps be taken to remedy this matter which is so important to the agricultural community of Coorg and to the inhabitants of South Kanara and Malabar.

Carried unanimously.

35. Proposed by Mr. W. B. Bucknall and seconded by Mr. C. H. Godfrey :

'This Association requests the Postmaster-General through the Superintendent of Posts and Telegraphs, Mysore and Coorg, to arrange that the mails arriving in Mysore for Coorg be despatched to Coorg at once instead of being kept in Mysore over 18 hours before despatch. They also suggest that a considerable saving of time would be effected if the mails were sorted on the train before arrival in Mysore.'

Carried unanimously.

Inferior Tea

36. Proposed by Mr. W. A. J. Milner and seconded by Mr. J. S. B. Wallace :

'That this Association again move the Madras Government to amend the Prevention of Adulteration Act so as to include Tea.'

Carried.

37. Proposed by Mr. W. A. J. Milner and seconded by Mr. R. N. W. Jodrell :

'That this Association approach the S. I. A., London, enquiring as to the possibility of amending the regulations regarding quality of tea so that the sale of very stinky tea be made impossible.

Carried unanimously.

FOURTH DAY—THURSDAY, AUGUST 20, 1925

Stephenoderes

38. Proposed by Mr. L. Newcome and seconded by Mr. E. H. A. Travers Drapes :

'That this Association wishes to draw the attention of the Director of Agriculture, Madras, and of all Governments in India to the danger likely

to arise from the import of coffee beans whether in the form of seed or otherwise and containers, without disinfection, owing to the prevalence of the disease known as *Stephenoderes* and other pests in foreign countries.'

Carried unanimously.

The Upasi Sports Club

39. Proposed by Mr. B. M. Behr and seconded by Mr. R. Fowke :

'That the alteration to the Rules of the Upasi Sports Club made by the Committee of that Club be confirmed.

1. Rule I, Clause (b) for the words "who is himself a subscriber to", substitute the words, "or any member of."

Carried.

40. Proposed by Mr. B. M. Behr and seconded by Mr. R. Fowke :

'Rule I, Clause (c). Delete the present clause entirely and substitute, "any planter, other than a proprietor who is not eligible under (b) may be accepted as a member of the Club on being admitted by a majority of votes of the Committee taken by ballot."

Result of acreage vote...	... for	522
	against	1,250

Lost.

41. Proposed by Mr. B. M. Behr and seconded by Mr. R. Fowke :

'Rule 2, 2nd para. Rs. 15, raised to Rs 25.
Rs. 10, raised to Rs. 15.
Rs. 100, raised to Rs. 150.

Carried 'nem con.'

42. Proposed by Mr. B. M. Behr and seconded by Mr. R. Fowke :

'That the scoring in the Inter-District Tennis Cup Match be altered to International (Davis Cup) scoring.'

Carried unanimously.

43. Proposed by Mr. R. Fowke and seconded by Mr. J. E. Sampson :

'That the Association approve the proposal that there should be Club Colours for the Upasi Sports Club and leave choice of same to the Sports Club Committee.'

Carried unanimously.

44. Proposed by Mr. C. E. M. Browne and seconded by Mr. R. N. W. Jodrell :

'That the Annual Sports Week be held in Ootacamund in the second half of February.'

Carried Unanimously,

45. Proposed by the Chair :

' That the following amendment made to Rule V of the U.P.A.S.I. Sports Club Rules as adopted by the General Committee at a Meeting held on March 25, 1925, be hereby confirmed:—

" That in Rule V of the U.P.A.S.I. Sports Club the words " Planters' Week " shall be substituted for the words " Annual Meeting of the U.P.A.S.I. " "

46. Mr. Fowke proposed a very hearty vote of thanks to the Sports Club Committee coupled with the name of the Honorary Secretary for the work done during the year.

Carried with acclamation.

The Cochin Port Trust Bill

47. Cochin Port Trust Bill :

The Chairman proposed a hearty vote of thanks to Mr. T. M. Ross for having acted for us in this matter.

Conservation of Manure

48. Proposed by Capt. W. B. Bucknall and seconded by Mr. F. Simmons :

' In view of the importance of manures in relation to the agricultural interests of India that this Meeting instruct the Secretary to obtain figures showing the amount of manure exported from India annually with a view to reopening the subject of the restriction of Export of Manures from India to the detriment of Indian Agriculture.'

Carried unanimously.

Finance

49. Proposed by Mr. C. E. M. Browne and seconded by Mr. F. G. Millar :

' That the sums shown in the Balance Sheet as Bad and Doubtful Debts be written off against the reserve for the same.'

Carried unanimously.

50. Proposed by the Chair :

' That the present Auditors, Messrs. Fraser and Ross, be elected as auditors for the current year on the same remuneration as heretofore.'

Carried unanimously.

The Labour Department

51. Proposed by Mr. F. Simmons and seconded by Mr. R. Fowke :

' That this Meeting do consider the whole question of the powers of the Control Committee with a view to arriving at a decision on the subject.'

Carried unanimously.

ADDENDUM

The following resolutions—received after we had gone to Press—will be reprinted in next week's issue. So that our readers can ignore this Addendum when getting their copies bound at the end of the year.

54. Proposed by the Chair :

‘ That the budget is hereby approved.’

Carried unanimously.

55. Proposed by Mr. O. J. Egan Wyer and seconded by Captain E. H. A. Travers Drapes and carried unanimously: ‘ That a further sum of Rs. 20,000 be put in fixed deposit or invested in gilt-edged securities to be added to the reserve fund created last year not to be withdrawn without the consent of the General Committee.’

56. Mr. Roland Fowke was elected unopposed as Chairman for 1925-26.

57. On the proposition of Col. Bucknall a hearty vote of thanks to the retiring Chairman was unanimously passed.

58. On the proposition of Mr. O. J. Egan Wyer a vote of thanks to the Dance Committee for their excellent arrangement with Thursday's dance was unanimously passed

59. On the proposition of Mr. Behr it was resolved to ask the retiring Chairman to sit for a portrait to be hung in the U.P.A.S.I. Office Room at Madras.

52. Proposed by Mr. B. P. Tailyour and seconded by Mr. J. S. B. Wallace :

' Resolved that this Meeting recommend that Control Committee shall have full powers in regard to the policy and management of all matters concerning only the Divisions for which they are elected, and that their recommendations be accepted unless the Executive Committee have reasons for disapproval, in which case the matter shall be referred back to the District Associations concerned.'

Carried unanimously.

The Glorious Dead

53. Proposed by Mr. B. M. Behr and seconded by Mr. R. Fowke :

' That the Executive Committee be instructed to draw out a scheme for a Roll of Honour to commemorate the names of those Planters who died or served during the War on any Front.'

Carried unanimously.

NILGIRI PLANTERS' ASSOCIATION

(INCORPORATED)

Proceedings of a General Meeting held on Thursday, August 6, 1925,
at 11 a.m., in the Coonoor Club.

Present

Messrs. A. K. Weld-Downing (*Chairman*), J. P. Waldeck, W. E. Forbes, C. R. Clayton-Daubeny, R. J. Layard, J. Backhouse, R. F. Bryant, R. L. Stuart, J. Lornie, Rob. Bake, and C. W. Hayne (*Honorary Secretary*).

Visitors

Messrs. L. Hockley and N. J. Dysart.

Proceedings.—Before reading the notice calling the meeting, the Chairman expressed his sympathies towards Mr. Soomar Sait's family in their late bereavement and requested the Honorary Secretary to write to them to that effect on behalf of the Association.

Notice calling the meeting was read.

Minutes of Previous Meeting.—The points were commented on and permission granted to insert the omission in the minutes of previous meeting ; one being a vote of thanks to the late Chairman, Capt. Windle, and the Honorary Secretary for their services for the past year, and the other the names of two members, viz., Mr. W. E. Forbes and Mr. C. W. Hayne for the U.P.A.S.I. General Committee. The minutes were then confirmed.

Tea Market in South India.—Correspondence between the Chairman and Mr. Lornie regarding this matter was read and discussed. The

Honorary Secretary was requested to write to Colombo brokers and see if there was any likelihood of them opening a tea market for South India in Madras.

U.P.A.S.I. Agenda and Delegates, Instructions.—The agenda was gone through item by item and delegates received instructions.

U.P.A.S.I. Sports Club.—In this connection the Honorary Secretary read a letter in the P.C. from the Honorary Secretary, Sports Club, as to the advisability of District Associations having a representative to keep in touch with the Honorary Secretary, Sports Club. Mr. Daubeney was chosen for, and accepted, the post.

Miscellaneous Correspondence.—Under this head a letter from the S.P.A. with reference to the repeal of Act XIII of 1859 was read. After discussion it was decided to take no action in the matter.

Letter from Major J. B. Leslie-Rogers was read in which he expresses the suggestion that N.P.A. meetings should be held in Ootacamund. This led to certain amount of discussion. It was decided, if possible, to hold monthly meetings and make a day of it by having some recreation in the way of tennis, etc., afterwards. The majority decided that Coonoor was the most favoured centre, but that if occasion demanded it should be held in Ooty. It was decided that Mr. Daubeney see what he could do in the way of arranging for tennis, etc., in conjunction with the Honorary Secretary. The Honorary Secretary was requested to write to the following and inform them they had been elected Honorary Members of the N. P. A. :—The Collector, Sub-Collector, District Superintendent of Police, Traffic Superintendent, District Forest Officer and District Board Engineer.

Read letter from Manager, 'Tettapoliem Estate, with reference to new acreage figures given in which practically 16 acres of roads were knocked off as 'not assessable' in an area of 200 acres. The Honorary Secretary was requested to write to him on the matter.

Read letter from Capt. Windle to Honorary Secretary *re* disafforestation of land. *Recorded.*

Read letter from Honorary Secretary to General Traffic Manager, S.I.Ry. *re* Karteri Road Station, goods shed. *Recorded.*

The following three names were put before the meeting as wishing to become personal members of the N.P.A. :—Messrs. H. S. Cameron, J. Backhouse and W. A. Cherry. *Duly elected.*

With a vote of thanks to the Chair and to Mr. Hockley for kindly attending the meeting, also to the Secretary, Coonoor Club, for the use of the room, the meeting terminated.

A. K. WELD-DOWNING,

Chairman,
N. P. A.

CHRIS. W. HAYNE,

Honorary Secretary,
N. P. A.

SOUTH TRAVANCORE PLANTERS' ASSOCIATION

(INCORPORATED)

Minutes of the Second Quarterly Meeting held at the Quilon Club, Quilon, at 10 a.m., on Saturday, August 8, 1925.

Present

Messrs. E. Hall (*Chairman*), Chas. Hall, A. H. L. White, E. T. C. Farr, T. L. Jackson, R. N. W. Jodrell, W. Gillespie, A. P. D. Lodge, A. J. White, L. J. T. Polgreen and F. G. Millar (*Honorary Secretary*).

Notice calling the meeting and agenda was read by the Honorary Secretary.

Minutes of the Annual General Meeting of May 2, 1925, having been published, was taken as read and confirmed.

Sri Mulam Delegates' Expenses, Rs. 164-12-0.—This amount was sanctioned. Mr. E. Hall explained that any sum recovered from the Travancore Government would be refunded to the Association.

Election of Delegates to U.P.A.S.I. Bangalore Meeting and General Committee Members.—Proposed by the Chair that Messrs. R. N. W. Jodrell and F. G. Millar be asked to represent this Association at Bangalore. *Carried.*

U.P.A.S.I. Agenda and Accounts.—These were discussed by the meeting and delegates instructed.

Rubber Growers' Association. Representation in South India.—The Honorary Secretary explained the original proposal of July 10, 1924, and the amended proposal of May 1925 for representation of rubber interests in South India. The meeting approved of the proposal to form a local committee to work in direct communication with the Central Association in London, copies of all correspondence to be sent to U.P.A.S.I. and South Indian Association; but considered there was a valid objection to the financial powers, vested in the U.P.A.S.I. Executive Committee in connection with the Mycological Station at Mundakayam, being delegated to a local R.G.A. Committee.

Lady Amphyll Nurses' Institute.—In view of the Association having, for a number of years, been a contributor to the funds of the South Indian Nursing Association and Nilgiri Nursing Home, the question of further annual contributions, having regard to the closing down of the Nilgiri Nursing Home, was discussed. Resolved to continue subscription at twenty-five rupees per estate for another year, when the question of future policy in connection with the South Indian Nursing Association will probably be settled.

Incorporation. Common Seal.—Proposed by the Chair that Honorary Secretary be requested to take steps to purchase an Association Seal to be affixed to official documents. *Carried.*

Auditor.—Proposed by Mr. T. L. Jackson and seconded by Mr. R. N. W. Jodrell that Mr. N. Marthanda Pillai be asked to audit the Association Accounts, at the end of the financial year, and that remuneration be twenty-five rupees. *Carried.*

Correspondence. Letter No $\frac{J\ 1183}{5/1100}$, dated July 1, 1925, from T. H. Cameron, Esq., District Magistrate, Devicolum, and letter, dated July 22, 1925, from Honorary Secretary, Mundakayam Planters' Association in regard to Tea Thefts.—Resolved to support any measures suggested for the prevention of thefts of manufactured tea.

Letter, dated July 29, 1925, from Honorary Secretary, Travancore Combined Planters' Association, in regard to Rubber Thefts.—The members were prepared to co-operate with the Travancore Combined Planters' Association in regard to any action taken with reference to the enforcement of the 'Rubber Thefts' Prevention Regulation (IX of 1087) '.

This concluding the business of the meeting a vote of thanks was passed to the Chairman and the meeting terminated.

E. HALL,
Chairman.

F. G. MILLAR,
Honorary Secretary.

DISTRICT NOTES

Coorg Paperchases

The Fraserpet 'Chase' was held on August 5, when Mr. and Mrs. Elsee of Segay, Mr. and Mrs. Pigott and the 'Rest' of Suntikoppa were 'At Home' to the District.

Messrs. Maurice and Sprott had worked out a course over new country, and, as hares, set out from the Fraserpet Circuit-house to lay the trail. Giving them a start of ten minutes, the Huntsman, Mr. Nicolls, put 'the hounds' to the scent, which led off in a northerly direction from the bungalow. Negotiating a low jump with a big drop on the far side, the 'Hunt' followed the line for almost a mile, before throwing up at a check. A cast round was made but it was some ten minutes before the 'pack' again owned to scent. The line bearing round to the left then ran parallel to the old Somwarpet Road which it finally crossed. Scent was now very poor but held for another mile over cultivated fields enclosed by stake and bambo fences. These obstacles while not formidable, certainly demand respect; a horse must clear them well to avoid a wound from the stakes, and ditches on either side add to the difficulty of taking off and landing. The line led on into scrub-jungle where 'hounds' were again at fault. It was hoped that the delay at this point would let up the 'tail hounds' but a couple were still missing when the 'pack' at length picked up the scent again. Soon afterwards the 'hares' were viewed on the back-trail but as the nature of the country made it impossible to avoid this, their lives were spared and, looking the other way, the 'Huntsman' sportingly stuck to the out-trail. This now bore to the right across swamp and back to cultivation. Here scent improved and it was possible to increase the pace which up to this point had been on the slow side. A

sweep round to the left brought the 'Hunt' within sight of the Circuit-house, and on to grass land where the going was really good. This finally carried on alongside the Suintikoppa road for some two and a half miles, to cross and run into scrub on the far side. A check let up the 'tail hounds' and soon after, owing to it, the 'packs' wept back along the road for a short distance. Then over a lantana fence to the right and sharp to the left, the 'Hounds' ran across a good grass stretch, in and out of a deep ditch and so to the finish at the Sandal-kote. It was found that with all the checks over a six-mile point, the 'Hounds' had gained five minutes on the 'Hares'. The run was voted most enjoyable and some forty jumps fully tested the adhesive powers of the Coorg Nimrods. The Field was disappointingly small consisting of Messrs. Bentley, Humphries, Iron Maurice Mahon, Morgan, Nicolls, Sprott and Webb. It is hoped that, now that easy-going Hunts have taken the place of all-out point-to-point races, more owners of 'tote-hacks' will turn out in future.

About forty people sat down to the handsome spread provided by the capable efforts of Mrs. Elsee and Mrs. Pigott. The guests were too numerous for individual mention, which is perhaps fortunate. One is spared the care and thought required to settle that spoil-sport Order of Precedence.

Bridge and Sandown occupied the afternoon and tea gave a finishing touch to a successful day.

W. A. D.

MUNDAKAYAM PLANTERS' ASSOCIATION

(INCORPORATED)

Proceedings at the Second (1925-26) Quarterly General Meeting held at the Mundakayam Club, on Saturday, August 8, 1925, at 2.30 p.m.

Present

Messrs. G. McPherson (*Chairman*), R. Harley, C. L. McLean, A. D. Vincent, J. S. P. Symons, A. Hamond, E. S. Conner, m. c., J. J. Murphy, F. Hawkings, G. A. Rutherford, E. J. Thom, H. V. Tringham, O. J. Egan-Wyer and M. S. Calderwood (*Honorary Secretary*).

Notice

The Honorary Secretary read the notice calling the meeting.

Agenda

1. *Minutes*.—Minutes of the Committee of Management Meeting held on July 18, 1925 (which had been circulated), were taken as read and confirmed.

2. *Annual General Meeting of the U.P.A.S.I.*

(a) *Appointment of Delegate*.—The Chairman moved 'that Mr. O. J. Egan-Wyer represent the Association at the U.P.A.S.I.

Annual General Meeting.' Mr. Egan-Wyer having agreed, the motion was carried unanimously.

- (b) *Instructions to Delegate.*—The agenda of the various meetings to be held at Bangalore were gone through item by item and the Delegate was instructed thereon.

3. *Income-Tax Edavagai Lands.*—The Chairman intimated that the Reference Case was now completed and that it had cost Rs. 1,649-1-0. The Special Cess of Rs. 0-1-4 (one anna and four pies) per planted acre on Edavagai lands, private Proprietors paying on double their acreage, which was being collected now, would yield Rs. 907-8-0 which, together with other receipts, including contribution of Rs. 500 from the T.C.P.A. would be sufficient to meet all expenses.

The Chairman moved a vote of thanks to Rao Bahadur K. A. Krishna Aiyangar, Mr. K. G. Sessa Iyer, and their assisting vakils for their able conduct of the case, which was carried unanimously.

4. *Cattle Pounds on Estates.*—There being no reply as yet received from Government regarding this matter, it was deferred. The Honorary Secretary was instructed to send a copy of his last reminder to the Chief Secretary to Government as it was thought he could not have received it.

5. *Rubber Stealing.*—The subject of rubber stealing was discussed at length; finally it was resolved to await the Dewan's reply to our letter before taking any further steps.

6. *Correspondence and any other Business.*—

- (a) *Sports Club Representative.*—The Chairman intimated that Mr. Conner wished to resign the post of District Sports Club Representative. Mr. Conner proposed that:—

'Mr. H. B. McPherson be asked to act.' Seconded by Mr. McLean and carried unanimously.

- (b) *Cyclostyle.*—Mr. A. D. Vincent proposed:—

'That the Association purchase a Cyclostyle to assist the work of the Honorary Secretary.' Seconded from the Chair and carried unanimously.

- (c) *Governor's visit to Travancore.*—With regard to the forthcoming visit of H. E. the Governor of the Madras Presidency, to Peermade, the Chairman undertook to write to His Excellency's Private Secretary and suggest that the members of the Association would all be very pleased if His Excellency would break his journey at Mundakayam.

There being no further business, the meeting terminated with the usual vote of thanks to the Chair.

G. MCPHERSON,
Chairman.

M. S. CALDERWOOD,
Honorary Secretary.

COMMERCIAL AND METEOROLOGICAL

I. The Rupee Exchange for the week ending August 15, 1925

Bank Selling Demand Draft on London

10th	11th	12th	13th	14th	15th
18 3/32d.	18 3/32d.	18 3/32d.	18 3/32d.	18 3/32d.	18 3/32d.

II. Summary of latest Market Reports and Prices to hand :—

(a) Some of the higher London Prices—

Highest prices realized on the London Market			Average prices obtained for tea			
Mark	Pkgs.	Price	District	Week ending July 25, 1925	January 1 to July 25, 1925	January 1 to July 25, 1924
(1) TEA (WEEK ENDING JULY 25)		s. d.		s. d.	s. d.	s. d.
(a) <i>Annamallais</i> —			N. India.	1 4·20	1 5·29	1 5·61
Thaymudi ...	255	1 5½	S. India. **1	4·15	††1 6·42	††1 6·09
Mokuttimudi ...	297	1 5½	Ceylon...	1 6·61	1 7·88	1 7·72
Periakaramalai ...	224	1 5	Java ...	1 0·68	1 0·62	1 2·44
(b) <i>Coorg</i> —			Sumatra.	Nil	1 4·46	1 4·52
Glen Lorna ...	29	1 2	Nyassa-land.	0 11·02	1 1·50	1 4·17
(c) <i>Central Travancore</i>						
Stagbrook ...	81	1 5½				
Thengakal ...	121	1 3½				
(d) <i>Mundakayam</i> —						
Yendayar ...	108	1 2½				
(e) <i>Nilgiris</i> —						
Prospect ...	148	1 8				
Nonsuch ...	152	1 7½				
(f) <i>Wynaad</i> —						
Erramaculla ...	251	1 1½				
(2) NO. 1 COFFEE (WEEK ENDING JULY 25)						
(a) <i>Mysore</i> —						
From 3 estates ...	177	bought in				
(b) <i>Nilgiris</i> —						
From 1 estate ...	110	bought in				
Yeragadoo ...	23	120/6d.				
Total				* 1 4·76	† 1 5·76	† 1 5·98

** Based on 3,994 packages.

†† „ „ 100,650 „

‡‡ „ „ 83,140 „

* Based on 74,297 packages.

† „ „ 1,665,543 „

‡ „ „ 1,653,151 „

(b) *Precis of reports on London Markets received on August 17 and covering the week ending July 25—*

(1) *Tea.*—Except for the best autumnal liquoring parcels, demand was less active and competition not so keen. Common kinds and plain medium grades up to 1s. 4d. per lb. ranged up to 1d. per lb. lower, Broken Pekoe Souchongs and small Fannings being especially slow of sale. Well made Broken Pekoes were comparatively steady. Dusts sold well, but rough stalky teas were difficult to dispose of. Travancores were mostly pale in cup and were rather difficult to sell on this account.

(2) *Rubber.*—Messrs. Leslie and Anderson quote buyers of Plantation Ribbed Smoked Sheet for Spot delivery at 4/4d. for October–December delivery at 3s. 8d. and January–March delivery at 3/2d. They report that during the week under review an active business was transacted over the whole of 1926 up to 2/8½d. for London landed, and 2/8d. for C. I. F. New York.

(3) *Coffee.*—Costa Ricas are still fetching handsome prices, but otherwise buyers are taking very little interest in the auctions except for something exceptionally fine.

III. Weekly Rainfall Statement

From April 1, 1925, up to and including Saturday, August 15, 1925

Stations are arranged in order approximately south to north and those not in planting districts are shown in small capitals.

Stations	W.	P.	Total	Stations	W.	P.	Total
1. Kalthuritty.	2.49	49.94	52.43	17. Coonoor ...	0.26	12.33	12.59
2. Tenmalai ...	1.34	53.14	54.48	18. Kotagiri ...	2.91	14.79	17.70
3. Mundakayam.	3.10	101.20	104.30	19. Ootacamund	2.08	22.59	24.67
4. Peermade...	5.30	104.26	109.56	20. Yercaud ...	2.49	21.73	24.22
5. V'periyar ...	1.06	46.50	47.56	21. Devala ...	4.22	N.R.	N.R.
6. Kalaar ...	8.50	134.57	143.07	22. Gudalur ...	2.63	47.11	49.74
7. Chittuvurrai	1.03	18.63	19.66	23. CALICUT ...	9.21	88.94	98.15
8. BODI'KANUR	0.18	5.35	5.53	24. Kuttiyadi ...	6.76	115.84	122.60
9. COCHIN ...	5.42	67.13	72.55	25. Vayittiri ...	4.97	109.10	114.07
10. Mooply ...	3.56	70.23	73.79	26. Manantodi...	3.90	75.35	79.25
11. Pachaimalai	4.23	74.90	79.13	27. Billigiris ...	1.48	32.89	34.37
12. Mudis ...	7.27	115.61	122.88	28. Sidapur ...	1.62	47.64	49.26
13. POLLACHIE.	0.52	11.28	11.80	29. Somwarpett	1.78	49.70	51.48
14. Manjeri ...	4.60	76.78	81.38	30. Ballupete ...	1.67	49.94	51.61
15. Nilambur ...	4.50	61.91	66.41	31. MANGALORE.	9.75	105.36	115.11
16. Naduvattam	3.64	51.38	55.02	32. MADRAS ...	1.84	11.23	13.07

W = During the week.

P = Previously.

N.R. = No return.

The Planters' Chronicle

Recognized as the Official Organ of the U. P. A. S. I. (Incorporated)

Managing Editor's Postal Address : POST BOX 155, MADRAS

Do. do. Registered Telegraphic Address : UPASI, Madras

VOL. XX, NO. 35] SAT., AUGUST 29, 1925 [PRICE, AS. 8

CONTENTS

	PAGE		PAGE
Editorial Notes ...	633	Leaf Disease of Para Rubber.	645
Exchange ...	635	Rubber and the Manufacturer.	647
Resolutions moved at the		Coorg Coffee Notes ...	650
Thirty-second Annual		Tastes in Tea ...	651
General Meeting ...	637	Commercial and Meteorological	653
Minutes of U.P.A.S.I. General			
Meeting ...	638		

EDITORIAL NOTES

The termination of the 1924-25 Coffee Season finds the world's visible supply standing at practically the same figure as at its commencement, i.e. 5,000,000 bags, and this in spite of a reduction of about 1,500,000 bags in world's deliveries. The *Bulletin de Correspondence* of Havre gives the following interesting compilation which as regards deliveries takes cognisance of all consuming countries and not only those by which statistical returns are prepared :—

(in thousands of bags)

—	1924-25	1923-24	1922-23	1921-22	1920-21
World's visible supply, July 1 ...	5,026	5,330	8,593	8,522	6,701
Production (Brazil) ...	13,721	14,864	10,194	12,862	14,496
Production (other countries) ...	6,762	6,868	5,705	6,926	5,787
Total ...	25,509	27,062	24,492	28,310	26,984
Deliveries ...	20,506	22,036	19,162	19,717	18,462
World's visible supply, June 30..	5,003	5,026	5,330	8,593	8,522

The following prices were realized on the London Market during June:—

Mysore.—Common, bold greenish 128.

Coorg.—Small greyish 99, good bold 135/6 to 136.

Nilgiris.—Small greenish 111 to 117/6, Peaberry 138/6.

Shevaroy.—Small greenish 110, good extra bold 142.

In addition to the 10 per cent increase in the permissible Rubber exports which obtains since August 1, there is to be a readjustment in Malaya of the Standard Production Scale itself. The increase is to be from 400 pounds to 500 pounds per acre, and the *Straits Times* opines that this augmentation will be equivalent to another 5 per cent increase in permissible exports over and above the normal 10 per cent increase under the Stevenson Restriction Scheme. Such estimates however must, we think, be received with caution owing to the discrepancy between the actually realizable standard production and the theoretical standard production; especially in the case of the smaller producers whose production for 1919-20 (the period chosen as the basis for the theoretical standard production of the Stevenson Restriction Scheme) had to be theoretically assessed in numerous cases where figures of their actual out-turn had not been maintained. The annual standard production in the May-July quarter stood at 256,200 tons which with 14,000 tons special allowance to small holders and 4,000 tons for Singapore and Penang made a total of 274,200 tons. The standard production for May-July was of course one quarter of this total or 68,550 tons; and the permissible exports were 65 per cent of this figure or in other words 44,557 tons. Now, if the *Straits Times's* estimate is correct we have to increase the above-mentioned 274,200 tons by 5 per cent or 13,710 tons to 287,910 tons in order to arrive at the figure which will be taken as the annual standard production for the quarter which has now commenced. One quarter of this last figure is 71,980 tons, of which 75 per cent or 53,985 tons will be the amount of the permissible exports during the quarter ending October 30, 1925. This shows an increase of 9,428 tons over the exports permissible in the quarter which closed at the end of the last month, and an increase of 19,710 tons over the quantity allowed in the quarter ending January 1925. The corresponding figure for Ceylon will be, we understand, about 4,100 tons and if we also take into consideration the 6,000 tons of uncoupons rubber recently released by the Rubber Controller in the Straits, we see that during August-October the exportable output from the restriction areas under the Stevenson Restriction Scheme is likely to be some 29,810 tons greater than it was during the quarter ended in the January of this year. If only they would open their eyes to such significant figures as these, it is difficult to see how American consumers could fail to appreciate the considerableness of the seasonal modifications which, even with a canny buying, accrue automatically under the Stevenson Restriction Scheme.

The daily Press continues to report questions put in Parliament at the instance of opponents of the Restriction Scheme. But so far as we remember no questions were asked and planters were allowed to suffer in silence when Rubber about a year ago was down at 11d. per pound. And does America forget the big money she raked in when Britishers had willy nilly to pay her for raw cotton 4, 6, and even 10 times a fair economic price?

Japanese tea producers are envious of, and concerned at, the success which is attending the propaganda of the Indian Tea Cess Committee in the United States. The Shizuvoka Tea Merchants' Guild having failed to extract a subsidy for propaganda purposes from the Japanese Department of Agriculture and Forestry invoked the support of the Tea Trade Association of Japan which at an extraordinary general meeting has resolved that pecuniary assistance from the Government is most urgently required. We are not yet aware what action Government has taken on the resolution, but in a country where the ruler of the country is still regarded as directly sanctioned by the deity we should not be surprised if the Government answer was more or less a parallel to the saying that God helps those who helps themselves.

A new company—The Estates and Agency Company, Limited—
A Planting was registered in London as a public company on July 1,
Combine with a nominal capital of £500,000 in £1 shares; to
 acquire certain estates in India and Ceylon; to adopt
 agreements (1) with the Dunsinane Tea Company, (2) with Seaforth
 Plantations, Limited, (3) with the Yemmegundi Estates Company, (4) with
 J. B. Adkins and F. W. A. Pett and (5) with the said J. B. Adkins; and
 to carry on the business of planters, etc. The registered office of the
 company is 3 Throgmorton Avenue, London, E.C.

The Conservator of Forests, Sixth Circle, Ootacamund, informs
A Jumbo Sale us that about fifteen elephants will be sold by auction at
 Nilambur which is forty-five miles from Calicut and forty
 miles from Tirur or Feroke on September 10, 1925, at 1.30 p.m.

Messrs. Peirce, Leslie & Co., advise us that the s.s. *Clan Mackenzie*;
Homeward s.s. *Harmonides*; s.s. *Clan Maccinnes*; and s.s. *Clan Macphee*
Freight all bound for London will be loading on the West-Coast
 during the second half of September; first half of October;
 second half of October; and early November, respectively.

EXCHANGE

His Excellency the Viceroy's announcement at the opening of the Legislative Assembly at Simla of the personnel of a fresh Currency Commission will bring the question of Exchange once again to the fore. From now onwards the various sections of the press will be announcing what, in their opinions, the Commission ought to do; and, as soon as the Commission has given its findings, the aforesaid papers will be publishing innumerable articles telling the members that they have done those things which they ought not to have done, and have not done those things which they ought to have done. The various writers will possibly achieve unanimity as regards the first or critical portion of the two-fold message; but will be opposed to each other, often diametrically, as soon as they come down to detail regarding the second or constructive part. We trust therefore we will not be considered as trespassers beyond our own domain if we venture to recapitulate as simply as may be some of the basic laws which govern Exchange. These laws are really quite simple, and the

admitted intricacy of the exchange problem is involved in the necessity of calculating the 'resultant' which will eventuate as they interact. Given a grasp of them, the amateur of economic turn of mind will be able to discriminate with perspicuity the relative worth of the various press articles which come to his notice, even though at the outset he may not be expert enough to formulate original theories of his own. But lacking that grasp, such articles will be to him what a book is to an infant who has not learnt to read: in both cases confusion will be only worse confounded by efforts to grasp the significance of the text.

The first point to remember is that the market rate of exchange must be ultimately dependent on the relations between exports and imports: not, that is to say, on arbitrary pronouncements of Government; but on the balance of trade.

The second point is that 'Imports' comprise not only goods but also Specie and Bullion; Council Drafts; and private remittances to England: and that similarly 'Exports' comprise not only goods but Specie and Bullion; Reverse Councils; and private remittances to India.

The third point is that the market is 'weak' when Imports are greater than Exports, and 'strong' when the reverse is the case.

The first point stipulates—what we consider the Babington-Smith Committee failed to appreciate—that Government influence is not Government control; for unless the amount of Reverse Councils offered in a weak market is equivalent to the excess of imports over exports; or the amount of Council Drafts honoured in a strong market equals the excess of exports over imports, the rate of exchange will inevitably tend to be not the rate at which Government transacts business, but the rate which would equate exports and imports by either decreasing or increasing the demand for gold. Suppose for instance the Government decide in a weak market to sell Reverse Councils at an arbitrary rate. They can only stabilize exchange at that particular rate if the amount of Reverse Councils they can sell is sufficiently large to bridge the imports-exports gap, and thus create a supply of gold equal to the demand. If however the Reverse Councils sold fall short of this, the initial rise in rate would in all probability create a fresh demand for cheaper gold and consequently in the ensuing reaction the price of gold would tend to rise and the rate of exchange to fall. When equilibrium was finally achieved the rate of exchange would depend not on the rate at which Government had sold their Reverse Councils but on the rate which sufficed to equate imports to exports by driving away the marginal remittance and attracting the marginal bill.

The Commission enters on its labours under favourable auspices; for Europe is settling down, albeit slowly, and the recent reconciliation of sterling to gold has eliminated the vagaries of a fluctuating New York-London Cross Rate. It will have the sympathetic interest of the Indian planting industry which is keenly interested in the establishment of a stable exchange at a sufficiently low rate. The price at which planting produce—at any rate rubber and coffee—can be profitably sold does not effectively govern the world price; and thus the planters, unlike the producers of such a monopoly as Jute, cannot force on the London market through higher sterling prices losses resulting from appreciations of the rupee.

RESOLUTIONS

MOVED AT THE

THIRTY-SECOND ANNUAL GENERAL MEETING

OF THE

U. P. A. S. I.

FOURTH DAY—THURSDAY, AUGUST 20, 1925

(Continued from page 625)

54. Proposed by the Chair :

‘ That the budget is hereby approved.’

Carried unanimously.

55. Proposed by Mr. O. J. Egan Wyer and seconded by Captain E. H. A. Travers Drapes and carried unanimously :

‘ That a further sum of Rs. 20,000 be put in fixed deposit or invested in gilt-edged securities to be added to the reserve fund created last year and not to be withdrawn without the consent of the General Committee.’

Mr. Roland Fowke was elected unanimously as Chairman for 1925-26.

56. On the proposition of Col. Bucknall a hearty vote of thanks to the retiring Chairman was unanimously passed.

57. On the proposition of Mr. O. J. Egan Wyer a vote of thanks to the Dance Committee for their excellent arrangements in connection with Thursday's dance was unanimously passed

58. On the proposition of Mr. Behr it was resolved to ask the retiring Chairman to sit for a portrait to be hung in the U.P.A.S.I. Office Room at Madras.

The proceedings then terminated.

U. P. A. S. I.

GENERAL COMMITTEE MEETING

Held at the Mayo Hall, Bangalore, on August 17 and 21, 1925.

On the 17th there were present—

Mr. J. A. Gwynne	...	<i>Chairman.</i>
„ C. K. Pittock	...	} <i>Executive Committee.</i>
„ J. A. Richardson	...	
„ G. W. Fulcher	...	<i>Hon. Secretary, Sports Club.</i>
Maj. C. H. Brock, O.B.E., V.D....		<i>Director, Labour Department.</i>
Mr. H. Waddington	...	<i>Secretary.</i>

and the following members

<i>Association</i>	<i>Representatives</i>
Annamallais	... Messrs. F. Simmons and J. E. Sampson.
Central Travancore	... Messrs. W. A. J. Milner and B. P. Tailyour.
Coorg	... Mr. L. Newcome and Lt.-Col. W. B. Bucknall.
Kanen Devans	... Messrs. J. S. B. Wallace and H. J. Watson.
Mundakayam	... Mr. O. J. Egan Wyer.
Mysore	... Messrs. C. H. Godfrey and E. W. Fowke.
Nilgiris	... Mr. C. W. Hayne.
Nilgiri-Wynaad	... Mr. Fowke.
Shevaroy's	... Messrs. E. H. A. Travers Drapes and W. A. Rahm.
South Travancore	... Messrs. F. G. Millar and R. N. W. Jodrell.
West Coast	... Messrs. H. C. Leslie and C. E. M. Browne.
Wynaad	... Mr. B. M. Behr.

NOTICE OF THE MEETING

Under instructions from the Chairman the Secretary read the notice convening the meeting; and explained that owing to a mistake full notice, as provided for under the Articles of Association, had not been

given. Under the alteration recently made in the Articles of Association twenty-one days' notice had to be given of General Meetings of the Association, but notice of meetings of the General Committee still required a calendar month's notice. The members agreed to waive the right in this case of full notice.

PROCEEDINGS OF THE LAST MEETING

The proceedings of the last meeting held at Ootacamund on March 25, 1925, were read and confirmed.

U. P. A. S. I. LABOUR RULES

The Chairman explained that, since the introduction of the Annamalai's scheme regarding the Labour Department, Rules XIX and XX were no longer applicable to present conditions.

Proposed by Mr. Pittock and seconded by Mr. Behr :

'That as the group and fee systems have been abolished there is no necessity to retain Rules XIX and XX and therefore they be rescinded.'

Carried unanimously.

Proposed by Mr. H. C. Leslie and seconded by Mr. F. G. Millar :

'That the following area be restricted to outside recruiting under Rule XIV :—

The area within the boundaries from Maravattichal to Kallur, from Kallur to the junction of the Palapilly road with the Cochin State main road, from this point along the main road to the junction of the Mattathur road, from this point along the Mattathur road to Vellikulangara, from Vellikulangara to the Mooply Tramway Station, from the Mooply Tramway Station to Kallichitra, from Kallichitra to Maravattichal.'

Mr. Behr asked what estates were included within this area and whether they belonged to the Labour Department.

Mr. Browne said that the estates were those of the Mooply Valley Rubber Company and that they all belonged to the Labour Department.

Mr. R. Fowke enquired as to existing connections, and pointed out that in previous cases of areas being restricted existing labour connections had been exempted and that six months had been allowed in which employers of labour from such districts could see that all such connections were registered.

Mr. Browne said he had no objection to raise to this being done and suggested another resolution be put forward to deal with the point.

The Chairman put the resolution to the meeting and it was carried.

Proposed by Mr. H. C. Leslie and seconded by Mr. F. G. Millar :

'That those estates who have not registered their existing labour in this area be permitted to do so within six months from date.'

The resolution was put to the meeting and carried unanimously.

LABOUR DEPARTMENT RULES

The Chairman said that these had been approved by the Executive Committee and circulated to all Associations and members of the General Committee. They now required to be confirmed by the General Committee.

Mr. R. Fowke asked that this subject be postponed till a later date ; as certain Associations had only just received copies of the draft Rules and had not had time to go into them thoroughly and were not prepared to offer a definite opinion at the moment.

Mr. B. P. Tailyour supported the proposal that the question of these Rules should be postponed till later in the week.

Mr. Pittock pointed out that the Rules before the meeting contained no new matter, but were simply a resumé of what has already been passed by the Association at the last Annual Meeting as amended by the General Committee at Ootacamund in March last.

The Chairman proposed :

'That the discussion regarding the proposed Labour Department Rules be postponed till Thursday.'

Carried.

LABOUR DEPARTMENT BY-LAWS

The Chairman explained that certain By-laws had been received from the Srivilliputtur and Palamcottah Control Committees, the principle of these had been approved by the Executive Committee but they were referred back for alteration in the wording, and asked if any delegate had anything to say on the matter or resolution to bring forward.

No resolution being put forward the matter was allowed to drop.

ANNUAL GENERAL MEETING

The programme was considered.

Mr. Fulcher asked that the matter of U.P.A.S.I. Sport's Club should be put forward from Wednesday morning till later in the meeting.

This was agreed to and it was decided to take up item ten, 'Sports Club' after item twenty-four.

The Secretary asked permission to add a new item with reference to the Factory Act to the agenda, as he had received a communication from the Commissioner of Labour, Madras, since arriving in Bangalore on which the General Meeting should be consulted and the Secretary suggested that it be put down for Tuesday morning as *Mr. Ellis, I.C.S.*, would then be present. This was agreed to and with these alterations to the programme put forward by the Executive Committee was approved.

ENTERTAINMENTS DURING THE WEEK

The Secretary informed the meeting that he had furnished the Club with a list of those who had advised him they would be present during the week and the Club had made them Honorary Members. The Resident and *Mrs. Pears* had invited delegates to a Garden Party on the afternoon of 17th. *Dr. Forster* and the staff of the Indian Institute of Science had sent an invitation for an At Home on the afternoon of the 18th and the United Service Club for an At Home on the 21st. The Planters' Dance would take place on Wednesday the 19th.

Some discussion followed as to details of the dance and with a vote of thanks to the Chair the meeting terminated.

At 10.30 a.m. on August 20, the Annual General Meeting of the United Planters' Association of Southern India, being still in progress the Chairman postponed the meeting of the General Committee till the following day.

On August 21, there were present:

Mr. R. Fowke in the Chair

and the same delegates and officers as on August 17, with the addition of *Mr. W. E. Forbes* of the Nilgiri Planters' Association, and *Mr. D. Mackintosh* of the Nilgiri-Wynaad Planters' Association and the exception of *Messrs. B. P. Tallyour* and *E. H. A. Travers Drapes*.

NOTICE OF THE MEETING AND PROCEEDINGS OF LAST MEETING

The Secretary read the notice convening the meeting and the proceedings of the meeting held on August 17, the latter were confirmed.

EXECUTIVE COMMITTEE

The Executive Committee was then ballotted for and the following gentlemen declared elected :—

	<i>Acting Member</i>	<i>Member-in- waiting</i>
For TEA	... Mr. C. K. Pittock	Mr. E. C. Sylvester
For RUBBER	... „ J. J. Murphy	„ H. J. Walmesley
For COFFEE	... „ L. Newcome	„ C. Lake.

LABOUR DEPARTMENT RULES

The Chairman said that he would now take up the matter of Labour Department Rules which had been postponed at the meeting held on Monday 17.

Mr. Behr pointed out the printing error by which VII appeared for VI in Rule VII and the Secretary was instructed to have this corrected.

Mr. Wallace asked if debit balances occurring at the end of a year in the accounts of Divisions would be met from U.P.A.S.I. funds.

The Secretary said that they could be met from the accumulated fund most of which had been contributed by the Labour Department.

Mr. Pittock said that it was the intention of those who framed the present scheme of working the Labour Department not to encourage extravagance and the idea that all debit balances would be met by the U.P.A.S.I. might open the door to that. It was a great safeguard if Control Committees which exceeded their income had to go to the District Associations to ask for an addition to the cess. Except under very exceptional circumstances he did not think anyone would care to do that.

Proposed by Mr. J. S. B. Wallace and seconded by Mr. W. A. J. Milner:

‘That the following Rule be added to those before the meeting :—

XIV. That in the accounts of the Labour Department any balances at head-quarters or in the Divisions shall be carried forward at the end of the financial year.’

Carried.

Mr. Mackintosh said that as the subsidy from the U.P.A.S.I. for tea was fixed at 10½ annas an acre his Association would like the subsidy for coffee and rubber also fixed at a definite figure.

Mackenzie & Co.

Motor and Mechanical Engineers

Royal Mail Contractors

37 South Parade, BANGALORE

Telegrams : 'GRIT,' Bangalore.

Telephone No. 118.

Services—

Accurate Machine Work and Gear Cutting.

Reboring Cylinders and Grinding.

Oxy-acetylene Welding.

Electrical Work and Repairs of every description and Battery Service Station.

Painting, Upholstering and Vulcanizing.

Foundry and Smithy.

Stockists—

Petrol (Pump or Cans) Oils, Grease, Tyres, Tubes and Accessories.

Large Stock of Genuine Ford Parts

'CARS FOR HIRE'

Agents for

The Motor Union Insurance Co., Ltd.

Willard Batteries and Parts

SPENCER & CO., LTD.

WHOLESALE AND RETAIL WINE MERCHANTS

Spencer's represent nearly all the foremost growers, distillers and brewers, and can therefore offer their clients, from stock, the widest choice of liquors in India.

CHAMPAGNES

Heidsieck 'Dry Monopole'; Moet and Chandon; Pommery and Greno; Bollinger; Giesler; etc.

WHISKIES

'King George IV' ('Top Notch' and 'Gold Label')
'White Horse'; Dewar's 'White Label'; Sanderson's
'Vat 69'. Peter Dawson; McCallum's Perfection;
etc., etc.

ALES AND BEERS

Beck's; St. Pauli 'Girl Brand'; Tennent's; Ross 'Red R'; Bass' (Dog's Head Bottling); Wm. Younger's; Melbourne Bitter; Wrexham Lager; etc., etc.

Please write for full List

Consignments of one whole case or more are packed and delivered by Goods Train FREE OF CHARGE to any station in the Madras Presidency.

SPENCER & CO., LTD.

MADRAS AND BRANCHES

The Secretary explained that the Rules before the meeting were framed to include everything which had been passed by the General Committee at previous meetings, as no amount had been arrived at with the exception of tea, he was doubtful if any definite figure should now be included for coffee and rubber until notice of the proposal had been given District Associations.

Mr. E. W. Fowke said he thought the matter ought to be referred to District Associations before any figure was included in the Rules.

Mr. Newcome agreed; as coffee men had not considered the matter or made up their minds on the subjects.

The Chairman proposed :

'That the question of fixing rates of the subsidy for all products be referred back to District Associations.'

Carried.

Mr. Mackintosh said that with reference to Rule IX (i) and (ii), which provided for the Control Committees making By-laws and settling disputes under them, his Association objected to members being in any way bound by the action of their maistres, which might be the case under such By-laws.

Mr. Behr raised the point as to nothing definite appearing in the Rules regarding members of the Control Committee retiring if, owing to alteration in area subscribing, their Associations became no longer entitled to a seat on the Control Committees.

The Secretary asked if the point could not be met by *changing* the word 'nominating' in Rule VII (iv) to 'having' and *adding* to the rule the words 'as long as the number of coolies obtained exceeds 1,000.'

Mr. Behr pointed out that this did not go far enough as it left VII (ii) without any provision as to what happened if an Association ceased to be one of the three District Associations obtaining the largest number of coolies in a Division, but he did not wish to press the point and thought the Rule as drafted might be tried for a year to see how it worked.

Mr. Mackintosh proposed :

That under Rule IX clauses 1 and 2 estate superintendents should not be bound by actions done by their maistres under these By-laws which may infringe on the Act in force in the District.

The Director of the Labour Department said that he presumed that *Mr. Mackintosh* was referring to the proposed Rules regarding absconding coolies. The agreement forms which had been supplied by the department for the past six or eight months have a clause in them (inserted under legal advice) which absolved the employer from liability should he have to take action under our Rules in the case of a defaulter of another estate subscribing to the U. P. A. S. I. who had been brought up to work on the employer's estate by his maistrey.

As no seconder of the resolution was obtained it was withdrawn.

Mr. Mackintosh said that there was another point, namely, that his Association was of opinion that under the heading of Staff of the Department Rule XI (iii), at the end of that clause the words 'for approval' be added.

The Director of the Labour Department pointed out this was provided for by Rule IX, Section (iii) which explains how the Control Committees are to deal with it.

The Chairman proposed :

'That the Rules with the additions now made be adopted.'

Carried.

THE BENEVOLENT FUND

The Secretary with permission of the Chair explained that, as the Southern India Planters' Benevolent Fund was a separately registered body and a separate Annual General Meeting was held, the discussion which took place regarding the Fund would not appear in the Book of Proceedings although it could be published in the *Chronicle*.

Proposed by Mr. H. J. Watson and seconded by Mr. W. A. J. Milner :

'That the proceedings of the Annual General Meeting of the Planters' Benevolent Fund be recorded in the U.P.A.S.I. Book of Proceedings.'

Carried.

FINANCE

Mr. O. J. Egan Wyer enquired how Rs. 97,000 was allowed to fall in arrears as stated in the report of a recent meeting of the Executive Committee and how much of this has since been collected.

The Chairman asked the Secretary to explain.

The Secretary stated that he had no other explanation except that District Associations had not paid their subscriptions at the right time. On July 6, there was outstanding due for subscriptions and cess to the Scientific Department a total of some Rs. 1,18,000 of which some Rs. 80,000 had since been received.

THE GROUP PHOTO

Mr. Millar said that with reference to the discussion which had taken place the day before he thought that the person unconnected with planting who appeared in the group could be painted out or erased.

Mr. Fulcher supported the proposal.

The Secretary explained that directly he saw the photo he had been to see Messrs. Barton Son & Co., and asked that the figure should be block-

ed out but that he was informed it was impossible without spoiling the whole photo.

Mr. Fulcher was of opinion that if planters refused to take copies of the photo, Messrs. Barton Son & Co., would find some way of erasing the photo from the part to which objection was taken, and suggested alternatively that a new photo be taken.

It was found however that several of those in the group had already left Bangalore and the second proposal was not therefore feasible.

Maj. Brock proposed that in any case in the copy of the photo published with the Book of Proceedings the figure should be blocked out and this was agreed to.

A vote of thanks to the Chair having been carried the Chairman declared the meeting closed.

H. WADDINGTON,

Secretary.

LEAF DISEASE

OF

SOUTH AMERICAN PARA RUBBER

Mr. R. D. Rands, Pathologist in Rubber Investigations of the Bureau of Plant Industry of the United States Department of Agriculture, has recently published in Department Bulletin No. 1286 a note on the present knowledge of this disease. It was first reported in 1904 from material collected from wild trees of *Hevea brasiliensis* in the upper region of the Amazon and subsequently has been found in the lower valleys of the Amazon as far as Para, in the British and Dutch Guianas and in Trinidad, and its distribution is probably coincident with that of the native *Hevea* species. It occurs both on wild and cultivated *Hevea brasiliensis* and also on two others species of *Hevea*, viz., *Hevea confusa* and *Hevea guyanensis*, but it has never been reported to attack any other plant than *Hevea*. At first it was looked on as a nursery trouble and a disease of secondary importance but in a very few years it has spread in the local plantations and practically ruined the local industry.

Description of the disease.—The leaf disease appears first on the tender, pendant, very young (three to five days old) leaves as opaque olive-green spots, 1/25th to 1/5th inch in diameter, on the naturally translucent reddish brown surfaces of the leaflets. When many spots develop the leaflets soon blacken, shrivel up, and fall off, followed in a few days by the long naked petioles. A severe general attack at this stage gives much the same impression as a case of *Phytophthora* leaf fall, except, of course, that it is confined to the very young leaves. Since, following the annual 'wintering' period, the trees put out new leaves over the entire crown or at least over

entire branches at approximately the same time, it is clear how a severe attack of the disease at this crucial stage can cause complete defoliation. In the course of four to five weeks after the first defoliation the trees have again put out a new crop of leaves, which in turn may be killed and drop off. Thus, the planting appears to be continuously going through the 'wintering' process. Stahel in Dutch Guiana found that three successive defoliations, occurring over a period of about six months, were sufficient to cause a general dying back of the entire crowns of five to six year old trees. This die-back, which is generally an indication of the presence of the leaf disease in a planting, was shown to be due to local starvation resulting from depletion of the starch reserves, first in the smaller branches and finally, with repeated defoliation, in the larger limbs and even in the trunk itself. Reduction in the yield of rubber follows closely the exhaustion of reserve food materials, so that after a few defoliations tapping becomes unprofitable.

Less severe attacks of the disease usually cause only the shedding of occasional leaflets, which, combined with more or less stunting of the remainder, gives the foliage a peculiar thin appearance. When only a few spots develop on a very young leaf, the unaffected portions continue to grow and cause a characteristic crumpled appearance. The subsequent falling out of the diseased portions, especially of the marginal ones, on such leaves gives them a ragged shot-hole aspect, which persists until the following 'wintering' period. This frayed-out condition is typical of a mild attack, and where not many of the leaflets actually drop off it has apparently little or no appreciable effect on the yield of latex.

Naturally all degrees in severity of attack may be observed, but the symptoms above described develop especially when infection occurs on very young leaves, one to three days old. According to Stahel, leaves more than a week old rarely become infected at all. Even before this the tissues have already become firm and more resistant to penetration by the fungus, so that the resulting lesions are quickly delimited, often somewhat hypertrophied, and usually small $1/25$ to $1/6$ of an inch in diameter, with sometimes a dead papery centre. Although large numbers of these minute spots may develop on a single leaflet and cause considerable stunting, death rarely results.

The under surface of both large and small spots has at first, under moist weather conditions, a velvety grayish white appearance from the millions of spores of the fungus produced on slender stalks arising from the diseased leaf tissues. Later, over the centre of the smaller spots or around the margins of the larger ones on the upper leaf surface, minute black points appear, which represent the further fruiting stage of the fungus. On account of their position around the spots these little points often form nearly complete rings, which are very characteristic of this disease on full-grown leaves.

Young twigs, flowers, fruits, leaf stalks, and fruit stalks are also attacked, causing black hypertrophied areas or cankers.

The fungus that causes this disease has three kinds of spores. One kind develops in enormous numbers mainly on very young leaves or other

tender succulent parts, such as leaf stalks, flowers, flower stalks, and young twigs, is readily carried by the wind from tree to tree and easily penetrates other young organs. The other two kinds of spores appear later but as far as is known do not play an important rôle in the spread of the disease. Germination and successful penetration of the susceptible leaf can occur only after moisture has been present continuously for ten to twelve hours, but leaves more than a week old are no longer susceptible. Once inside the leaf the fungus spreads in all directions and after a period of about five days the first external symptoms of the disease may be observed, while one or two days later spores appear. Thus in less than a week the fungus is able to reproduce itself, a fact which explains the very rapid spread of the disease under favourable conditions.

The bulletin is very well illustrated and contains graphic descriptions of the havoc caused by the disease in various regions. It is well worth perusal by every one interested in *Hevea* cultivation. Some talk has arisen about there being other varieties of *Hevea brasiliensis* that give a better yield of latex than those now cultivated on estates in the East, and it is just possible that some one may have an opportunity of importing fresh seed. Though the disease has not been reported to occur on seeds or on capsules, yet it is quite possible that it may occur on the latter, and care would have to be exercised in handling the imported seed and its packing and in the choice of a place in which to grow the plants, in order not to add this far more destructive disease to the already too familiar second leaf fall. The disease has already been notified under the Destructive Insects and Pests Act of 1914, and seeds of *Hevea* can be imported into India from America (including the West Indies), only through the agency of the Madras Department of Agriculture.—W. McRae in the *Agricultural Journal of India*.

RUBBER AND THE MANUFACTURER

A Revolutionary Discovery

Major B. J. Eaton, Agricultural Chemist in the F.M.S., read a paper in the second Annual Conference held at Kuala Lumpur on 'Rubber and the Manufacturer—Some Recent Problems.'

At the outset Major Eaton remarked that this subject ought to be of supreme interest and importance to Malaya as the largest producer of the rubber manufacturer's raw product, and also as the pioneer of one of the most romantic and important agricultural industries in the Empire. The importance of the industry on the producing side needed no further indication than the action taken by the Imperial Government, some two years ago, with the object of saving the industry from great difficulties, if not from disaster. In the course of his lecture he hoped to show that all the recent advances in rubber manufacture would not have been made if it had not been for the researches of the rubber chemist, and that the future

of the rubber manufacturing industry, as well as the producing side of the industry, was intimately dependent on advances in scientific knowledge and the application of the results of scientific research.

Although they had heard very few complaints concerning the raw product in recent years, Major Eaton continued, nevertheless those who were in touch with the technical and manufacturing sides, as well as the producing side, of the industry, were aware that there were variations in raw rubber, apart from its vulcanizing capacity, and they were endeavouring to elucidate the causes of these variations. Although they were still producing smoked sheet and pale crepe as their standard grades, it was possible that one or both of these might be replaced by other types of the raw material, and continuous research into methods of preparation and treatment of the raw material were, therefore, essential. Already some thousands of tons of latex were being exported from this country, and the export was still increasing. This had necessitated research into the properties of latex in many directions, and they still had much to learn.

PRESENT METHODS NOT IDEAL

The properties of rubber, and its application to numerous uses, were profoundly influenced by the physical and chemical changes which took place during the process of vulcanization, carried out in various ways and under varying conditions. The manufacturer was, therefore, interested in the quality of the raw material as it reached the market, and the producers were concerned to place on the market the type of rubber which best suited the manufacturers' requirements at the cheapest cost of production. In his opinion the present methods were not ideal from either point of view, although any change that occurred in the present methods would probably eventuate by slow evolution, unless circumstances forced them to adopt other methods.

After referring to the various conferences, associations, and publications which indicated the interest that was still being taken in this problem, the speaker dealt with the question of the variability of the plantation product. He outlined the research work which had been done in this connection, and stated that plantation raw rubber was now infinitely more uniform than it was ten or fifteen years ago. He thought, however, that even at the present time they would get more complaints about variability if it were not for the largely increased consumption of rubber, especially for tyre production, and also the decline in production of wild rubbers, the latter representing at present less than ten per cent of the world's supply.

REVOLUTIONARY DISCOVERY

The speaker passed on to the discovery of 'organic accelerators,' which he described as the most important factor which had influenced and improved the vulcanized product since the discovery of vulcanization in 1840. He considered that the use of these substances was the most important and far-reaching discovery of the last decade, as far as rubber

was concerned. Their use had saved enormous sums to the manufacturer, and had resulted in great improvements in the quality of manufactured articles. In further considering this subject, the speaker said it had been stated that the resistance of modern rubber compounds to ageing had probably been lengthened by one year and that in the absence of 'accelerators' three extra tyres per car per year, would probably be required.

In the concluding part of his paper the speaker dealt with various technical aspects of his subject, such as the cleanliness, and packing of rubber, new types of rubber, advances in modern practice in the industry, and the export and uses of latex. In reference to the marketing of rubber he said his own impressions confirmed the statement that the buying department of the rubber manufacturer was not in close touch with the technical staff, and therefore, the manufacturer was not necessarily obtaining through the dealers his real requirements. In his opinion there was little doubt that some type of selling agency or co-operative marketing would be of considerable value in connection with the technical side of the industry and the preparation of the raw material. An organization was wanted for bringing together the consumer who needed the rubber and the producer and such an organization was also essential in connection with trials of special types of rubber.

AN INTERESTING DISCUSSION

A member asked what was the future for concentrated latex, and whether it had been tried to any extent.

Major Eaton replied that only experimental lots had so far been sent home, and he had not heard of any definite experiments by any of the well-known rubber chemists or by rubber manufacturers. It might have its uses for special purposes, but nothing was known yet as to the economic side of it, and he was rather doubtful whether they could prepare a more uniform rubber than was prepared in the East on estates.

In reply to another question Major Eaton said that the only company which was now exporting slab rubber was the Pirelli Company, which had estates in Java and South Johore.

A member asked how much kampong rubber went direct to America.

Major Eaton replied that buyers getting rubber for the United States bought large quantities of blanket crepe, which was largely native rubber.

The Chairman, in moving a vote of thanks to the speaker, said that Major Eaton stood in the first rank of chemists in the rubber world. Major Eaton had explained the value of scientific research in the rubber world, and the fact that so much time was being spent on research augured well for the future of the industry.—*The Planter*.

COORG COFFEE NOTES

There are perhaps some of you who have never heard of Coorg Coffee. East Indian Coffee—yes; Mysore coffee—yes again, but COORG? Thereby hangs a tale. A certain Coorg planter anxious to support home industries, entered a retail coffee shop in London and asked for Coorg Coffee. 'Coorg Coffee?' said the salesman, 'we don't keep it, Sir, and you wouldn't like it if we did. We can sell you some excellent Mysore.' Now while Coorg Coffee is every bit as much East Indian coffee as Mysore, an expert, considering the liquoring qualities, the aroma and the flavour, will price Mysore at a few shillings more for the hundredweight. A connoisseur may even be able to name the plantation on which the coffee was grown. The consumer, who appreciates his after-dinner 'demi-tasse', will buy East Indian Coffee, flatter himself he can only drink Mysore, and half the time will be enjoying Coorg!

Yet there are people who ask what there is in a name. Mysore—Hyder Ali first taught the British to respect that name, and Tippoo his son made it unforgettable. Coorg, when the 'Company' was beset by foes, remained loyal and, as is often the case when gratitude is due, was soon forgotten. Hence the need of an introduction.

A hilly district, the size of Kent, lying between Mysore and the West Coast: a somewhat malarious but otherwise delightful climate independent of the 'punkha'; wooded hills and rice covered valleys; such is Coorg which has been called 'the Wales without the sea.' And the Coorg himself?—he is easy-going and easy to get on with; not perhaps exactly a world's worker, for which he has been identified with the lost tribe of Issachar. A genial neighbour but sometimes a trial when he grows coffee. Many indeed cultivate with care but some are content to reap where they do not sow and their estates remain breeding grounds for the deadly coffee-boring beetle.

Xylotrechus quadripes (the White Borer) at one time nearly ruined coffee cultivation in India. In the good old days, when seedlings were planted in mere cracks in the virgin soil and thrived, coffee was grown in the open. Then the Borer, indigenous, some say, to the Bamboo jungles, found that the coffee trees were the very thing for which it was looking and laid its eggs accordingly. And the grub, gnawing to shelter inside the stems, decimated estates. Now-a-days coffee is grown beneath shade-trees which limit the destructiveness of the borer but unfortunately do not entirely prevent it.

This year Coorg suffers from the beetle to a greater extent than usual. The complete absence of any North-east Monsoon in 1923, and the prolonged drought at the beginning of 1924 are probably responsible; it is hoped that the unusual amount of rain this Spring will have an opposite effect next year. While not fatal the present situation is in some estates serious, as much as one-sixth of the acreage having 'gone out with borer.'

The Monsoon so far has been remarkable. Showers at the beginning of June proved but to be heralds far in advance. The Monsoon proper delayed until the third week when it broke with the intensity of a July

burst: The rainclouds then rolled back giving Coorg a week of post-Monsoon fine weather. Now the rain has again returned with the apparent intention of making up for lost time.

Unfortunately on certain estates the Green Bug was encouraged by the spells of fine weather. This pest is capable of doing very definite damage to young shoots and coffee berries when in the forming stage. So far, however, it has not been considered as a serious menace in Southern India, as during the Monsoon it succumbs to grey mould. It is fostered in the nests of tree ants, but must have additional shelters; even where the ant-nests are carefully destroyed the green bug is not entirely eliminated but returns to blight the trees each Hot Weather.

With the burst of the Monsoon the last season comes definitely to a close. It has been in many ways a remarkable one, commencing with forward sales as early as last August. A rush of buyers inflated the price from Rs. 60 to Rs. 97 within six weeks, handsome profits being made and lost. Those who held on hoping for a further rise were sadly disappointed as prices fell quicker than they had risen until they reached a level about Rs. 70. With the high prices North Coorg was fortunate in having, for the most part, large crops. In South Coorg good crops were scarce, but the benefit will, it is hoped, be reaped this year, while estates in the North are suffering from the effects of recent over-bearing. Whether prices will again soar remains to be seen; it is comforting, however, to hear that forward sales on a small scale have been made as early as the present, the price accepted being Rs. 75 for 'parchment' on the estate.

Throughout the season the cart problem was acute. Large crops created a demand and the supply was greatly limited by rinderpest. The adoption of motor transport was the apparent solution, but whereas the roads in Coorg are for the most part excellent, the lack of bridges and the state of the roads outside the province make the use of lorries impracticable. It is to be hoped that the Government will, before long, realize the great need of substantial highways to the coast and take steps to encourage the enterprise of the individual. As things are at present the planters are in the hands of the native cartmen.

—*Indian Scientific Agriculturist.*

TASTES IN TEA

There is an old Latin maxim which runs, *De gustibus non disputandum est* ('There is no arguing about tastes.') It holds good in the matter of tea consumption as with other human preferences. Some people like one kind, some another, some have no particular choice. Not only is there little room for disputing about these variations in taste, but there seems also to be small prospect of success in analyzing them and getting at the reasons for them. A definite change in taste sends ruin to the tea industry in one section and brings prosperity to another, but forecasting and influencing it are for the most part almost hopeless tasks, says the *Tea and Coffee Trade Journal of America*.

Of late years there has been considerable advance of black teas in this country, helped along by the advertising campaign, but it is yet too soon to determine whether this is anything more than an ordinary trade fluctuation. American consumption now stands at rather more than one-half black teas, about one-third green teas, and the rest oolongs. In the fiscal year that closed last June 30 black teas represented 55 per cent of the total, green teas 32 per cent and oolongs 13 per cent. For the first ten months of the present fiscal year practically the same proportions hold good, and it would probably be safe to consider them now as a fair normal for the American consumption.

Sectionally there is but one outstanding preference. For some reason the middle West has long been strongly addicted to green teas as against both oolongs and blacks. In the rest of the country, particularly the Far West and the South, neither black nor green teas are marked out as special favorites. Throughout the East black teas are in strong demand, perhaps for no better reason than, that the fermented teas from British India and Ceylon come through the eastern ports. Boston and the rest of New England have great fondness for oolongs from the Far East—an inheritance, apparently, from the days when the fast sailing ships brought to their home ports in New England precious cargoes of China teas.

If the United States does follow the lead of England and swing over almost entirely to black teas, it will but be reverting to the taste of the colonial fore-fathers, for the country definitely started out to be a black-tea consumer. The tea served at the Boston Tea party was good black bohea, and for the first 10 years of the country's independent existence its purchases strongly favoured that kind and quality. Then about the beginning of the last century the hysons and young hysons and other green teas began to crowd out the blacks, and continued to dominate until well into our own times. The turn toward black, heavy-bodied teas has of course been largely due to the same factor that turned England from a green-tea to a black-tea consumer,—the tremendous growth of tea growing in India and Ceylon.

In connection with the growth of black tea in favour, one recognized authority has suggested that such advance pointed to a much greater consumption of the actual liquid drink than the mere sales figures would indicate. Black teas, in the cup, make a much darker liquid than green, and the housewife and restaurant keeper are likely to take that into account in measuring out the portions for tea kettle and urn. The public, in Dr. Wiley's phrase, is much inclined to 'drink with its eyes,' and a very dark-coloured cup of tea is likely to be looked upon as unusually strong. It may, of course, be much weaker than a light, almost colourless liquid made from green tea; but the average drinker is not discriminating, and it would take a good deal of instruction before he would consent to distrust the plain evidence of his eyesight. A greater sale of heavy-bodied teas accordingly indicates that Americans are actually drinking more cups of tea every day, even when the trade figures point toward a stationary or declining consumption.—*Indian Scientific Agriculturist*.

COMMERCIAL AND METEOROLOGICAL

I. The Rupee Exchange for the week ending August 22, 1925

Bank Selling Demand Draft on London

17th	18th	19th	20th	21st	22nd
18 3/32d.	18 3/32d.	18 3/32d.	18 3/32d.	18 3/32d.	18 3/32d.

II. Summary of latest Market Reports and Prices to hand :—

(a) Some of the higher London Prices—

Highest prices realized on the London Market			Average prices obtained for tea			
Mark	Pkgs.	Price	District	Week ending August 1, 1925	January 1 to August 1, 1925	January 1 to August 1, 1924
(1) TEA (WEEK ENDING AUGUST 1)		s. d.		s. d.	s. d.	s. d.
(a) <i>Annamallais</i> —			N. India.	1 4·30	1 5·25	1 5·62
Sholayar ...	80	1 5½	S. India. **	1 3·80	†† 6·30	†† 6·10
Mokutimudi ...	343	1 5½	Ceylon...	1 6·32	1 7·80	1 7·70
(b) <i>Central Travancore</i>			Java ...	1 0·74	1 0·80	1 2·48
Glenmary ...	20	1 8½	Sumatra.	1 5·99	1 4·48	1 4·52
Twyford and Ashley.	346	1 4½	Nyassa-land	Nil	1 1·50	1 4·18
(c) <i>Nilgiris</i> —						
Prospect ...	131	1 7½				
Thiasholla	131	1 7½				
(d) <i>Nilgiri-Wynaad</i> —						
Seaforth ...	85	1 4½				
(e) <i>South Travancore</i> —						
Merchiston ...	102	1 1¾				
Invercauld ...	34	1 1½				
			Total	* 1 4·92	† 1 5·72	† 1 5·99

** Based on 4,508 packages.

†† " " 105,158 "

†† " " 87,785 "

* Based on 67,872 packages.

† " " 1,733,415 "

† " " 1,694,969 "

(b) *Précis of reports on London Markets received on August 24 and covering the week ending August 1—*

(1) *Tea.*—The closing sales of the old season's Indian Teas were marked by animated bidding, and advances of from $\frac{1}{4}d.$ to $1d.$ per pound for common and low medium kinds and of from $1d.$ to $4d.$ per pound on good liquoring and autumnal parcels were recorded.

(2) *Rubber.*—Values set back sharply during the week under review, and on Wednesday, July 29, were about $8d.$ per pound lower than they were on Wednesday 22. Messrs. Leslie and Anderson quoted buyers of Ribbed Smoked Sheets at $3/8d.$ per pound for 'Spot', and $2/11\frac{1}{2}d.$ for delivery during the last quarter of this year.

(3) *Coffee.*—The market was unexcited but steady and prices were kept firm by a certain demand from the continent. Fairly good qualities were quickly bought up; but medium to poor qualities were slow of sale.

III. Weekly Rainfall Statement

From April 1, 1925, up to and including Saturday, August 22, 1925

Stations are arranged in order approximately south to north and those not in planting districts are shown in small capitals.

Stations	W.	P.	Total	Stations	W.	P.	Total
1. Kalthuritty.	2.53	52.43	54.96	17. Coonoor ...	0.66	12.59	13.25
2. Tenmalai ...	3.06	54.48	57.54	18. Kotagiri ...	N.R.	17.70	N.R.
3. Mundakayam.	5.35	104.30	109.65	19. Ootacamund	0.63	24.67	25.30
4. Peermade...	9.64	109.56	119.20	20. Yercaud ...	0.70	24.22	24.92
5. V'periyar ...	N.R.	47.56	N.R.	21. Devala ...	8.68	84.29	92.97
6. Kalaar ...	7.14	143.07	150.21	22. Gudalur ...	2.66	49.74	52.40
7. Chittuvurrai	0.21	19.66	19.87	23. CALICUT ...	2.76	98.15	100.91
8. BODI'KANUR	N.R.	5.53	N.R.	24. Kuttiyadi ...	5.84	122.60	128.44
9. COCHIN ...	3.13	72.55	75.68	25. Vayittiri ...	5.07	114.07	119.14
10. Mooply ...	1.73	73.79	75.52	26. Manantodj...	3.66	79.25	82.91
11. Pachaimalai	2.30	79.13	81.43	27. Billigiris ...	N.R.	34.37	N.R.
12. Mudis ...	8.13	122.88	130.101	28. Sidapur ...	0.87	49.26	50.13
13. POLLACHI.	0.98	11.80	12.78	29. Somwarpett	3.48	51.48	54.96
14. Manjeri ...	3.32	81.38	84.70	30. Ballupete ...	4.51	51.61	56.12
15. Nilambur ...	4.67	66.41	71.08	31. MANGALORE.	2.82	115.11	117.93
16. Naduvattam	2.76	55.02	57.78	32. MADRAS ...	0.45	13.07	13.52

W = During the week.

P = Previously.

N.R. = No return.

The Planters' Chronicle

Recognized as the Official Organ of the U. P. A. S. I. (Incorporated)

Managing Editor's Postal Address : POST BOX 155, MADRAS

Do. do. Registered Telegraphic Address : UPASI, Madras

VOL. XX, NO. 36] SAT., SEPTEMBER 5, 1925 [PRICE, AS. 8

CONTENTS

	PAGE		PAGE
Editorial Notes ...	655	District Notes ...	667
The Dutch East Indies Revenue System ...	658	Sports Club Rugby Football...	671
Eothen's Monthly Market Notes ...	660	Manures and Hevea Brasiliensis ...	671
Questions in Legislative Council ...	662	Commercial and Meteorological ...	677

EDITORIAL NOTES

The draft of the Cochin Port Trust Bill provided that the Trustee representing the United Planters' Association of Southern India on the Board should be elected 'at a meeting of the Association held in accordance with the rules in force,' and that on the occurrence of a vacancy that vacancy should be filled in the same way. It needs no stress to show that this procedure, had it been enforced, would have caused enormous inconvenience to the widely scattered Planting Community; several of whose members would have had to leave their estates for days on end in order to form themselves into a meeting to conduct an election which could just as well have been arranged through the post. In the absence of Capt. Windle, the Planting Member, Mr. T. M. Ross of Messrs. Best & Co. very kindly brought the matter up in the recent Council Session and prevailed on the Government to accept an amendment under which the Planting representative on the Cochin Port Trust will—like the Planting Legislative Council Member—

be elected by post. We are sure we have the Planting Community with us in tendering Mr. T. M. Ross our hearty thanks.

The general position may be understood from the following figures :

Tea Over the 10 years from 1913 to 1923 India has increased her annual export of tea from 292,000,000 lbs. to 345,000,000 lbs. and Java from 65,000,000 lbs. to 90,000,000 lbs. On the other hand, Ceylon exports have fallen from 197,000,000 lbs. to 182,000,000 lbs. and China from 191,000,000 lbs. to 107,000,000 lbs. The consumption figures are even more illuminating ; those of the United Kingdom having gone up from 346,000,000 lbs. to 427,000,000 lbs. and of the United States from 95,000,000 lbs. to 107,000,000 lbs. ; while Russia has almost disappeared as a consumer, the figures for 1923 being just over 3,000,000 lbs. against 178,000,000 lbs. in 1913.

We give below a table which shows the percentages of Standard Production exportable at the minimum duty, and the *Restriction Price* average price which rubber obtained on the London Market for the ten quarters from November 1922 when the Restriction Scheme was inaugurated to April 1925 :—

Quarter	1922-23		1923-24		1924-25	
	Exportable percentage of standard production	Average price	Exportable percentage of standard production	Average price	Exportable percentage of standard production	Average price
Nov.-Jan. ...	60	1/2·285	60	1/2·175	50	1/5·998
Feb.-Apr. ...	60	1/4·858	60	1/0·917	55	1/7·356
May-July ...	65	1/2·242	60	0/10·974	65	...
Aug.-Oct. ...	60	1/2·994	55	1/2·632	75	...

We publish it as it may be useful for reference in connection with the present vast output of literature on the Restriction Scheme ; and as brings out clearly the fact that, had not the price for the May to July quarter in 1923-24 been forced down below 1s., no cuts below 60 per cent would have taken place.

As our readers probably know, or will glean from the figures themselves, the Restriction Scheme allows a release percentage of 60 per cent so long as the quarterly average price is below 1/3d. but above 1s. when the average price has been between 1/3d. and 1/6d. per pound for a quarter the percentage of release is increased by 5 per cent, and when the average price has been over 1/6d. for three months the percentage of release is increased by 10 per cent. Inversely, if the average price has been below 1s. during any one quarter the percentage of release is reduced by a successive series of 5 per cent per quarter until the pivotal point of 1/3d. has once again been reached.

*Much Ado
About
Nothing* Mr. Eric Miller, Chairman of the Rubber Growers' Association in London, has sent the following very pertinent reply to the Rubber Association of America in response to a cable which he received from them. 'From tone of your cable it would appear your members do not realize their own

share of responsibility for present situation which would never have arisen if they had shown reasonable foresight and pursued sound buying policy during past twelve months instead of hand to mouth. Working on your figures; assuming usual seasonal slowing down July, August, and 10 per cent releases August and November, I calculate lowest point crude stock will be passed this month. Am struck by absence of American orders for 1926 even at enormous discount. What is the explanation? MILLER.' The average prices of Rubber for 1921, 1922, 1923 and 1924 respectively were 10½d., 9¼d., 15½d. and 13½d., which gives a mean average for the quadrennium of 12½d. a pound: a figure obviously insufficient to keep estates going and also to give a fair return on the £300,000,000 odd of capital which they represent. Furthermore up to a few months ago, producers were glad to sell forward for 1926 at ¼d. and even now the 1926 price is only 2/6d. per pound.

At Westminster On July 31 Mr. Thomas who was the Secretary of State for Colonies in the Labour Government made *inter alia* the following remarks in the course of a parliamentary debate:—

'Last year, during the greater part of our period of office, the price of rubber varied as between 9d. and 1s. 3d., and for one period of almost three months it touched 1s. 6d. Had 350 tons of rubber been purchased then, when the price was 1s. 6d., we would as a Government, under the scheme, have been compelled to release an additional 10 per cent, which meant putting 45,000 tons of rubber on the market. The fact remains that buyers did not avail themselves of the opportunity. They refused to do it, and deliberately jockeyed the market then, and by jockeying the market then they deprived themselves of 45,000 tons of rubber being placed upon the market.'

In the same debate Sir Robert Hutchison said:—

'It is noteworthy how very dependent we are on America for our cotton. We produce a product which, I venture to say, can pay for that cotton, and that is the rubber grown in Malaya, and, therefore, anything that we can do to foster the production of rubber and the better the price that the Americans pay for that rubber the better we shall be able to pay for the cotton which we require in Lancashire. Attention has been drawn recently to the price reached by rubber, and it may be germane to the subject to call attention to the price of cotton. In 1911 the price of raw cotton was 7·45d. per lb., in 1912, 7·32d. in 1913, 6·6d. In July of this year the average price was 13·48d.

*Coffee Shade
Trees* The supply of Coffee Shade Tree Seed, referred to on page 535 of our issue of August 1, 1925, as having been received from the Director of Agriculture, in Kenya, is now exhausted; so further applications to the Secretary, United Planters' Association cannot be met. In this connection we hope to hear, in due course, from the Planters who obtained seed whether the species supplied germinate satisfactorily and appear to thrive on South Indian Estates.

THE REVENUE SYSTEM

OF THE

DUTCH EAST INDIES

Some details of the Revenue System obtaining in a foreign tropical agricultural Dependency may prove of interest to our readers; and we therefore give the following summary of a lengthy article which Mr. Gerritsen, a Revenue Official of the Java Government, has contributed to *The Empire Production and Export* for August, 1925.

The 1925 budget estimate of the Dutch East Indies amounts to Fl. 405,000,000 (a Florin or Guilder equals s. 1/7·824*d*) and is analysed below:—

	(In millions of florins or guilders.)		(In millions of florins or guilders.)
DIRECT TAXES—		Brought forward Fl. ...	265
1. Income tax ...	44	MONOPOLIES—	
2. Profit tax ...	51	13. Salt ...	18
3. Ground tax ...	7	14. Opium ...	27
4. Tax on personal property ...	3	15. Pawn shop ...	12
5. Land tax, Capitation ...	40	16. Net revenue (i.e., profit) of the Government tin, coal, rubber, forest, etc., enter- prises ...	41
INDIRECT TAXES—		17. Net revenue (i.e., profit) of the Government industries (railways, tramways, post, telegraphs, harbours, Government printings, etc.)	32
6. Import duties ...	60	18. Miscellaneous ...	10
7. Export duties ...	7		
8. Excise ...	29		
9. Duty on transfer of pro- perty ...	2½		
10. Inheritance duty ...	½		
11. Stamps ...	14		
12. Miscellaneous ...	7		
Carried over Fl. ...	265	Total net revenues Fl. ...	405

DIRECT TAXES

Item 1.—The Income Tax is leviable on all who are not subject to Land tax (Item 5), and the incidence ranges from 1 per cent on an annual income of Fl. 120 to 25 per cent on incomes of over Fl. 180,000. Temporarily all these rates are increased by 30 per cent.

Item 2.—The Company Profit Tax is ordinarily equal to 10 per cent of the yearly profits, but owing to a 25 per cent temporary increase, companies are now paying 12½ per cent.

Item 3.—The Ground Tax amounts to ¾ per cent of the rentable value of all immoveable property not liable to Land Tax. (Item 5).

Item 4.—The Personal Property Tax is levied on Europeans and foreign Orientals; and amounts to 5 per cent of the rentable value of the house, 2 per cent of the value of furniture, and a smaller percentage on Horses, Carriages, Bicycles and Motor Cars.

Item 5.—(a) The Land Tax is levied on indigenous land owners only. In the case of Wet lands it amounts to from 8 to 20 per cent of the value of the produce ; while in the case of Dry lands it is levied on the value of the land and not of the crop and varies from Fl. $\frac{1}{4}$ to Fl. $\frac{1}{4}$ per 'bouw' which equals to $\frac{1}{4}$ acres.

(b) The indigenous inhabitants are liable for personal service on public works ; but exemption can be obtained by payment of prescribed rates.

INDIRECT TAXES

Items 6 and 7.—The Customs duties are fiscal and not protective in nature ; and Imports whether from Holland or foreign countries are taxed from 6 to 12 per cent *ad valorem*, though certain articles are admitted duty free. Export duties are levied on certain indigenous products, and this year for the first time native rubber is being thus taxed.

Item 8.—Alcoholic liquor, Petrol, Matches, Tobacco, are the chief sources of revenue under this (Excise) head.

Item 9.—Contracts for the transfer of Real Estate are subject to an *ad valorem* transfer duty of 5 per cent.

Item 10.—Inheritance duty (we have not been able to ascertain the exact incidence) is levied on property obtained in direct succession or inherited by will.

Item 11.—Stamps are required on all 'Legal Documents,' and even petitions to Government are included in this term.

Item 12.—There are many miscellaneous indirect taxes on such commodities as butcher's meat.

MONOPOLIES

Item 13.—The Government holds a monopoly of salt and sells its manufactures through salt vendors who are licensed each year.

Item 14.—The import and sale of Opium is also a Government monopoly, and in this case prospective buyers also are required to take licenses out.

Item 15.—Owing to maladministration of private pawn shops the Government took over control in 1903, and each year since then the Pawn Shop Department has made a considerable sum.

Items 16 and 17.—The various heads from which the revenue under these items is obtained are detailed in the table above.

In conclusion it is worth recording that foreigners are not allowed to purchase lands from the indigenous owners ; but the Governor-General can authorize Dutch subjects and Trade partnerships registered in Holland or the Dutch East Indies (independently of the nationality of the Directorate and Shareholders) to take up holdings on a lease not exceeding 75 years.

MONTHLY MARKET NOTES

BY

'EOTHEN'

TEA

Auctions of new season's invoices are now beginning, the old season's crop having been disposed of. The tea market has, on the whole, remained fairly steady; and considering that the rubber share market has almost monopolized attention, holders of tea shares must be fairly well content with the absence of appreciable fluctuation in their market, which is obviously marking time. In fact the recent setback has probably been in the nature of *reculer pour mieux sauter*, and let us hope that the jumping movement will not long be delayed. The tea auctions themselves have been held up by the August holidays—the tea market always seems to be closing for a fortnight for some holiday or other—but private sales have been carried out at satisfactory prices.

The Indian tea propaganda in America has borne fruit, and incidentally has worried Japan. Certain Japanese Chambers of Commerce have considered the benefits which have accrued to the Indian tea trade owing to this advertising, and, fearing that Japanese teas will be squeezed out, are considering, asking their Government for a subsidy to enable them to compete with the Indian tea propaganda. They are not unanimous in seeking Government assistance, however, so may be nothing will come of it (*vide* page 635 in issue of August 29. Ed.).

When auctions were resumed on August 10, the market opened quietly with buyers adopting a cautious attitude, but a better tone developed as the sales progressed. The quality of the new season's tea was about the average. The Ceylon sales went off well, the tone being better than at the Indian auction. Quality is beginning to improve and where tea possessed colour and flavour prices quickly appreciated. Yesterday's sale of Indian teas was not encouraging. Prices were lower for all light liquoring and common sorts. The few really good quality invoices alone sold well. There was a fair market for several invoices of useful Dooars teas and for any tippy descriptions.

Total exports of India tea from April 1 to the end of July are given as 47,268,000 lbs., as against 40,570,000 lbs. in the same four months of 1924. On the calendar year to July 31, the Southern India figures are 22,615,748 lbs., as compared with 18,106,596 lbs. last year. Apart from the large increase to this country, in the case of Northern India, a satisfactory feature is an advance so far of 60 per cent to North America and of more than 50 per cent to miscellaneous destinations. The latter is more remarkable, however, in the case of South India shipments, which are nearly ten times as much as the quantity exported in the same period last season.

RUBBER

It is easy to be wise after the event, but most of us thought that rubber at 4/6d. per lb. was not destined to last for many days, and it was therefore with little surprise that we watched it fall one shilling during a week. There were so many forces acting to bring it down that looking at it afterwards, one marvels that there were not more 'bears' about.

Let us recall some of the more important factors which caused the reaction. Firstly, the deliberately chosen anti-restriction attitude adopted by an important section of the British press. The Rothermere and Beaverbrook journals would be wroth if accused of playing the American game, and would doubtless claim that their anxiety is on account of the British tyre manufacturers. In any case, these powerful journals found in the 'release more rubber' cry another stick with which to beat the Government. Secondly, the manifestoes and deputations of the British tyre manufacturers must have had some effect on the Colonial Office, especially when the aid of the powerful Industrial Group in the House of Commons was enlisted and obtained. Thirdly, the polite representations of the American Government to our Foreign Office, that friendly relations were being endangered, caused Mr. Austen Chamberlain to give the matter his 'most careful consideration.'

It was therefore not to be wondered at that the Colonial Secretary, in the course of his lengthy statement dealing with the Colonial Office's rubber policy, should, while paying lip-service to the Stevenson scheme, allow certain concessions in Malayan assessments (and presumably Ceylon will follow) which will have the effect of really releasing say 12 per cent additional, rather than the standard 10 per cent additional laid down in the ordinances (cf. page 634 issue of August 29. *Ed.*)

Rubber 'bears' have had a lovely time. Within a week the January-March 1926 position price dropped from 3/6d. to 2/11d. (A 1d. per lb. on a ton of rubber represents nearly £10). But try to imagine the faces of some of the speculators, and there were many of them, who bought January-March around 3/6d. when the market was rampantly bullish. Some of the brokers have had a worrying time trying to advise these 'bulls' how to get out with a minimum of loss.

A market authority, when October-December was around 4/- said to a broker, 'Man, you're not *Pennies* out, you're shillings out!' And he was right.

One must not forget that in addition to the fresh supplies of rubber which will be shipped next year when presumably restriction will be practically abolished, the reclaimed rubber factories in America will by that time be working in full blast. The Americans will do their best to organize a kind of buyers' strike to keep the price down, and although it is unpopular to be bearish when there is a young boom on, the indications for 1926 are that those companies which sold forward at 2/8d. and 2/6d. have done very well for their share-holders.

London rubber stocks have remained fairly steady, though up this week. The figures are :—Imports 922 tons, a decline of 362 tons, deliveries 627 tons, stock shows an increase of 295 tons to 4,576 tons, as compared with a total of 51,400 tons on the corresponding date last year.

The announcement that the new Malayan assessment of 500 lbs. per acre in the case of certain companies only mean another 200 tons per month has steadied the market somewhat, allaying the extravagant rumours put out by the 'bears'.

COFFEE

During the past month offerings in auction in London have been of small dimensions, but despite this fact the market has been dull and demand

very slow, indicating that buyers are still pursuing a hand-to-mouth policy, no doubt in the hope of lower prices. There has, however, been good competition for the finest sorts which have fully maintained their former values, whereas coffees of medium and common descriptions have had very little attention paid to them by buyers, and have consequently been very slow of sale.

There is no fresh news from Brazil of any importance to affect the statistical position. According to Messrs. Duuring and Zoon the world's visible supply stood at 5,214,000 bags on August 1 as against 5,085,000 bags on July 1. It is interesting to note that the Hamburg terminal market was reopened on July 28. Prices receded towards the end of July, but rapidly recovered, buyers being more active, no doubt owing to the somewhat lower offerings from Santos, and Brazilian shippers report that trade has considerably improved. This is especially so in the case of Santos coffees, as they have been relatively cheap, in comparison with Rio and Victoria.

In a recent speech the Chairman of the Santa Cruz Coffee Company hesitated to express an opinion as regards the future of the market. If the Brazilian Government maintains its control, of which there seems to be every prospect, he saw no reason why we should expect any serious break in prices for some time to come. Of course, if there were to be a substantial rise in Brazilian exchange we might expect a fall in the price of coffee.

Yesterday's spot market was quietly steady and futures were quiet. At Tuesday's auction when public sales were resumed after the holidays, demand was poor and only a small part sold at steady rates.

LONDON,
August 13, 1925.

MADRAS LEGISLATIVE COUNCIL

QUESTIONS PUT AND ANSWERS DELIVERED CONCERNING

PLANTING AFFAIRS IN SOUTHERN INDIA

The reports contained in the daily newspapers of the questions asked in Council and replies given were short and incomplete; and, as being of interest to the general body of planters, we give the same in full.

AUGUST 18, 1925

The post of Rubber Mycologist

60—

127 Q.—Sriman SASIBHUSAN RATH MAHASAYO: Will the hon. the Minister for Development be pleased to state—

- (a) when the post of Rubber Mycologist was created; and
- (b) what are the duties assigned to the incumbent holding the post?

60 127—

A.—(a) The post was sanctioned temporarily by the Secretary of State in July 1919 and an officer was appointed to the post on May 16, 1921. His period of contract expired on May 15, 1925.

- (b) The officer was appointed to investigate diseases affecting rubber. The entire cost of the officer was met by the United Planters' Association of Southern India to whom his services were lent during the period of his contract.

AUGUST 20, 1925

Recruitment of labour from South Kanara, Malabar, etc.

208—

274—Q.—Mr. J. A. SALDANHA : Will the hon. the Home Member be pleased to state—

(a) what is the approximate number of labourers who were recruited from each of the districts of South Kanara, Malabar, Coimbatore, Salem and Nilgiris during the three years ending December 31, 1924 for coffee, tea, rubber and other plantations—

(i) in those five districts ;

(ii) in Mysore, Travancore and Cochin States ;

(b) how many of these belonged—

(i) to the depressed classes ;

(ii) to the Indian Christian community in South Kanara ;

(c) how many of these plantations have been visited by the Labour Commissioner or any other official of the Labour Department or by the Collectors of the district and their subordinates and other officers concerned during the last three years ;

(d) whether Government have received any reports from them as to the conditions of housing and comforts of the labourers from the above-mentioned districts employed in the plantations ;

(e) what are the conditions under which the labourers from those districts are housed and accommodated and cared for so far as sanitary arrangements, amenities and comforts of life are concerned ; and

(f) whether it is a fact that a large number of labourers are enticed from South Kanara by labour agents with hopes of high wages and comforts of life from South Kanara to plantations on the hills in Malabar, Nilgiris, and Coimbatore districts which are falsified in actualities of life and that a considerable number of them return broken down in health and in extreme poverty ?

208 274—

A.—(a) & (b) The Government have no information.

(c) The attention of the hon. Member is invited to the answer given to clause (b) of question No. 683 asked by him at the meeting of the Legislative Council held in March last.

The Commissioner of Labour recently visited the Anamalajai plantations in the Coimbatore district.

- (d) Yes ; so far as the conditions on the Anamalais are concerned.
- (e) Extracts from the report of the Commissioner of Labour regarding housing and sanitation are placed on the table of the House.^a
- (f) No. *

*Extracts from the report of the Commissioner of Labour on the
Anamalai plantations*

* As to the housing conditions, I found many of the lines extremely good, particularly those more recently built. The older estates have darker, less well-ventilated lines but in merely every case these estates have a building programme sanctioned and are pulling down a certain number of old lines each year and rebuilding them on a better plan. The good lines are indeed almost too good for the coolie in the present state of enlightenment upon matters of health. He does not like ventilation and light and I found in some cases the verandah of the lines boarded up and used as pig styes or fowl yards and the window or ventilators blocked up with rags. The managers are doing their best to stop all this but their efforts are not popular. In some cases the lines had been made very filthy in these ways but it was the fault of the coolies themselves not of the lines provided for them.

Each room is furnished, in most cases, with four wooden bunks raised 3 or 4 feet off the ground. The practice is to give each family a separate room so that when the family is large there may be more than four, but the managers try in other cases to keep the members to four per room.

In addition to pay, the estates give the coolies good Tanjore rice at concession rates. The difference between the cost of the rice and the amount charged for it to the coolies has amounted to eight lakhs in the last four years. Sick coolies really unable to work are sent to one of the many hospitals where they are fed and looked after free.

Conservancy.—This, I fully agree, is bad. But the fault lies with the coolies chiefly. They cannot be got to use the latrines provided, whether pit or otherwise. They prefer, especially in wet weather, to use the ground, covered with tea bushes, immediately surrounding the lines. I confess the problem seems to me insoluble until the coolie class have learned more sanitary habits. The danger of course is that the soil becomes infected with hookworm and also that the water-supply, usually from a stream running down the hill side close to the lines, becomes infected. The Director of Public Health has suggested to the planters a trench system with a movable corrugated iron structure. This seems the best arrangement possible but I doubt whether the coolies will be got to use it.

10. *Medical relief.*—All except the smallest estates have a hospital or dispensary, the latter in charge of a compounder. Patients are first treated at these dispensaries or small hospitals and then if necessary sent on to the larger group hospitals of which there are five, at Valaparai, Mudies, Kallionapandal, Karakundru and Panimade, each built at a cost of

Rs. 30,000 or more in charge of a fully qualified medical man, the whole medical system being in charge of the European Chief Medical Officer. The annual expenditure on medical treatment apart from cost of buildings comes to Rs. 1,05,000 or nearly Rs. 5 per head of the coolie population. The planters are doing considerably more for the coolies in this respect than the Local Fund administration is in their own districts.

Working hours, etc., of labourers

209—

283 Q.—Mr. J. A. SALDANHA. Will the hon. the Home Member be pleased to state, with reference to the answer given to question No. 683 on 27th March 1925, volume XXIII, page 779,—

(a) how many days in a month and for how many hours a day on the average the labourers work ;

(b) whether cottages or huts are provided for such labourers at the cost of the employers ;

(c) if so, how much accommodation is provided for each labourer with or without family ;

(d) what arrangements are made in the several plantations for the medical treatment of the labourers and at whose cost ; and

(e) if answers on these points cannot be given without calling for elaborate statistics from several plantations, whether Government will be pleased to collect them as soon as convenient for being placed before the House ?

209 283—

A.—(a) The Government have no information as to the number of days the labourers work in a month. They work for eight or nine hours a day.

(b) Yes.

(c) Four persons are usually accommodated in a room 12 ft. X 12 ft. Each family is given a separate room.

(d) In some of the larger estates hospitals and dispensaries are provided, while smaller estates utilize the institutions in the adjoining estates. The labourers are given treatment at the cost of the plantations.

(e) Does not arise.

AUGUST 21, 1925

The working of the Planters' Labour Act I of 1903.

305—

313 Q.—Mr. J. A. SALDANHA : Will the hon. the Home Member and the hon. the Law Member be pleased to state—

(a) the number of persons convicted under the Planters' Labour Act I of 1903 in 1924 as compared with that in 1923 and 1922 ;

(b) now that the Workmen's Breach of Contract Act (XII of 1920) has been repealed;

- (i) whether the local Government propose to repeal the penal and the other provisions of the Planters' Labour Act in regard to workmen's breaches of contract,
- (ii) if so, when they will bring the necessary legislation, and
- (iii) if not, on what grounds are the present provisions in the Planters' Labour Act as to workmen's breach of contract to be retained;

(c) what rules Government have published or propose to publish as to the provision for the lodging of labourers and comforts and amenities of life under the Planters' Labour Act; and

(d) what reports Government have called for and received from local authorities in these respects for years 1923-24 and 1924-25?

305 313—

A.—(a) The attention of the hon. Member is invited to the annual reports on the working of the Planters' Labour Act for the years 1922, 1923 and 1924 recorded in G. Os. No. 786, Law (General), dated the 7th March 1923, No. 793, Law (General), dated the 8th March 1924, and No. 934, Law (General), dated the 18th March 1925, which were placed on Editors' Table.

(b) (i), (ii) & (iii) The Government do not propose to take any action at present towards the repeal of the provisions of the Act.

(c) No rules have been published by the Government, and there is no proposal at present to frame any rules.

(d) No reports are received by the Government. The attention of the hon. Member is, however, invited to the reports of the District Magistrate, Malabar, recorded in the Government Orders referred to in the answer to clause (a) in which it is stated that the housing, sanitary and medical arrangements in the estates to which the Act applied are satisfactory.

AUGUST 25, 1925.

Alleged grievances of labourers in plantations.

429—

771 Q.—Mr. J. A. SALDANHA: Will the hon. the Home Member be pleased to state—

(a) whether when entering into contracts with labourers in the South Kanara district, maistris and other agents of planters frequently take thumb impressions of illiterate labourers mostly of the Adi-Dravida communities to documents which bear no date or to stamp papers without any writing except the entry made by the stamp vendor as to the sale of the paper;

(b) whether it frequently happens that in such cases documents are ante-dated or written afterwards to enforce contracts which never took place ;

(c) whether it frequently happens also that widows, children, and even grandchildren of labourers are detained like slaves in plantations on the hills in Malabar, Coimbatore and Nilgiri district for enforcement of contracts real or fictitious of such labourers ; and

(d) what steps Government have taken and propose to take to inquire into and remedy these alleged grievances ?

429 771—

A.—(a) to (d) The hon. Member's attention is invited to rules 2 and 3 of the rules framed under sections 4, 13 and 42 of the Planters' Labour Act, 1903. The former rule prescribes that 'every labour contract shall be written in a language understood by the magistrate or other person authorised under section 4 of the Act and shall contain,' among other particulars 'the signature of the labourer or if the labourer is unable to sign his name, the impression of his left thumb. . . . ' and 'the signature of the magistrate or other persons before whom the contract is signed'. Under rule 3, a certificate should be given by the magistrate or other person before whom a contract is signed to the effect 'that the terms of the contract have been fully explained to and are understood by the contracting parties.' The proper observance of these rules would make it impossible for such abuses as those referred to by the hon. Member to occur and the Government have no information that they are prevalent. If the hon. Member will give any specific instances of such abuses that may have come to his notice, the Government will be prepared to make the necessary enquiries.

DISTRICT NOTES

Shevaroy's

The weather on these Hills at present is very unpleasant from a visitor's point of view as the days are dull and in the afternoons, showery, which spoils all chance of recreation. The total rainfall for July amounted to only 4 to 5 inches and so it looks as if we are again to be short in the year's total.

Health.—A peculiar epidemic of severe Bronchitis, latterly accompanied by fever is prevalent, chiefly amongst the European population. Judging by the way it has spread it is infectious, and very difficult to shake off. Most of the Labourers on these Hills have recently been protected against small-pox and apparently the vaccine was very good as most of the coolies have pronounced it as *rombu ketta pal*. The epidemic of chicken-pox which persisted for so long, has at last come to an end as no cases have been reported for nearly a month.

Posts and Telegraphs.—The status of the Nagalur P.O. is being reduced to a departmental one and the telegraph office at the same place has been closed, a decidedly retrograde step, because the planters in the Nagalur District decline to accept the demand for a higher guarantee. The latter is necessitated by the policy of placing a highly paid official in charge when a junior is all that is necessary. Orders to remove the telegraph wire were issued nearly six months ago but apparently the wire has no value in the eyes of Government as lengths of it have been cut down and stolen while no steps have yet been taken to remove what remains.

Railways.—Great inconvenience is caused at Salem Junction by the Mail trains to Madras and Bangalore drawing up beyond the covered way. Passengers have to walk from the Waiting Rooms the whole length of the covered portion of the platform to get to their carriages, and when it is raining this is anything but pleasant. Presumably the idea is that the poor engine arrives so tired that it ought to be saved any extra journey it would have to make for water, or it may be that the Engine Driver should be placed as far as possible out of temptation in case he should think of indulging in the excellent Gingerade which is sold at the Refreshment Room. Would it also not be possible to put the First and Second Class through carriage on the Mangalore-Bangalore train, in the middle of the train instead of next to the Engine as at present, where it is quite impossible to get any sleep (for which presumably the higher rates are charged) owing to the severe jolting, and just as you fall into a doze there is a piercing shriek from the Engine and you wake up surprised to find yourself still on your bunk instead of on the floor where you appear to have been thrown.

Coffee is looking very well and still showing a vigorous growth. Most of us are approaching the completion of our handling. Some have completed manuring while others are just beginning. There seems to be a great divergence of opinion regarding the best time to apply artificial manures, some preferring the early part of the S. W. Monsoon and others the period between the S. W. and N. E. Monsoons. When the Mixture contains manures that are slowly available of course the earlier they are applied the better, but when easily soluble manures are used the question is whether the size and quality of the bean are affected at all by an application in August to September when the bean is practically matured. Another point worth consideration is can the tree be induced to continue an appreciable growth during the non-growing period by a late application of readily soluble manure? If so it would minimize the effects of leaf disease by maintaining a steady relay of new tips to take the place of the older leaves which become diseased. Then there is another point of view which also seems sound and that is that whether your manure is readily available or not, an early application enables the wood for next year's crop to get an early start with a vigorous growth which will make it more disease resistant. The disadvantage in this case is said to be the risk of heavy rain on a manure that is easily soluble in water but fear of this risk appears to be rather groundless in a district like ours where the rainfall seldom exceeds sixty inches in the year and where, on one or two occasions only the total fall for two successive days will amount to four or five inches. Altogether the manure problem is a very difficult one and can only be definitely decided by experiments over a period of years but no doubt our new Experimental Station will take this in hand and the results when published, will make very interesting reading.

Pests.—Leaf disease has begun to show up. Spraying with adherent Bordeaux Mixture has been undertaken on one estate and about fourteen acres have been done with two gallon Holder Sprayers so that it would appear that Spraying for leaf disease is not such an impossible proposition as we were inclined to think. The work was begun only at the end of July which, according to the instructions given by our scientists, is rather late. This could not be avoided owing to the late arrival of the Sprayers, but the experiment was carried on with the idea of saving the tips even if the old leaves derive no benefit. The actual result will probably only be known in January to February after the attack of leaf disease is over. Green Bug is having a bad time of it as both the Blue and White Moulds are wiping them out almost as soon as the young Bug appears. Another enemy of the Bug is also more plentiful this year. The little black Lady-bird, which had become so scarce during the last eight years has reappeared in large numbers on some estates and very useful work is being done by this tiny creature. Apparently it has, in its turn, some enemy which has not prospered this year. What this enemy is might be worth investigation.

Social.—There is very little doing. A Military Whist Drive was held at the Victoria Rooms on the 27th instant, when Marylands Estate won the prizes for the second time this year. This table lost only one Home flag the whole evening.

Sport.—Two Panthers were shot near Yercaud this month.

E. H. A. T. D.

August 29, 1925

Planters' Sports at Bangalore

Spencer's 'Russian Fleas' Tournament.—This took place at the West End Hotel and was voted a great success and an improvement on billiards, owing no doubt to it being an easier and more sociable game for planters who hardly ever see a billiard table. The prize was a pair of very nice billiard cues in cases presented by Messrs. Spencer & Co., Ltd.

The Tournament was won by South Travancore represented by Messrs. Millar and Jodrell who played well together, aided by a certain amount of fortune and shots that they did not apologize for.

Ten districts competed.

Dewar Golf Cup. (Handicap).—The members of the Bangalore Golf Club kindly allowed us to play this competition on their links. The early hours at which it had to be played, after late nights, which was unavoidable, were not conducive to a very high standard of play.

The Cup was won by Mr. Newcome of Coorg. His standard of play was most steady and he is suspected of going to bed the night before.

Last year the winner was Mr. Cotton of the Anamalais.

Ten entries were received,

As regards the above two competitions, the bad luck of Mr. Godfrey, an old Upasi member and sportsman, should be mentioned.

In the 'Fleas' tournament his partner unfortunately had to go to hospital, and he offered to continue the tournament single-handed, one shot to his opponent's two.

In the Golf Competition some dispute arose over local rules and he had to replay his semi-final, which he lost.

May he have better luck in both competitions next year.

Planters' Dance.—This was held at the B. U. S. Club, and we believe was a great success. We only trust that our Bangalore guests enjoyed themselves as much as we did ourselves.

Tennis at B. U. S. Club.—On the last day of the Conference the Club was 'At Home' to the planters.

A friendly match was held between us and the members of the Club. The afternoon was much enjoyed. On a previous afternoon practice games had been played so that the Honorary Secretary of Tennis could see our form and match us accordingly. This he was most successful in doing as there was much even play, and the planters won by 4 matches to 3.

Scores

Mr. and Mrs. Davies ...	lost to	Mrs. Bingham and Capt. Shackleton.
	6-4 6-4	
Mrs. Waddington and Mr. Behr ...	beat	Miss Walsh and Capt. MacGeorge.
	6-4 3-6 6-3	
Miss Parsons and Mr. Millar ...	beat	Mrs. Craigie Halkett and Capt. Evans Lombe.
	6-0 6-4	
Mrs. Bracken and Mr. Hayne ...	lost to	Mrs. Pell and Col. Vickers.
	9-7 6-2	
Miss James and Mr. Downing ...	beat	Miss Seagrave and Mr. Longfield.
	6-3 6-3	
Mr. Behr and Mr. Davies ...	beat	Mr. Russell and Mr. Tod.
	6-2 8-6	
Mr. Fulcher and Mr. Browne ...	lost to	Mr. Dunbar and Capt. Wallis.
	6-1 6-3	

'A Delegated Visitor.'

U. P. A. S. I. SPORTS CLUB

Rugby Football

Will any planter willing to play Rugger for a planters' team in the Madras Rugby Football Tournament commencing October 5, kindly send me his name *as early as possible*, letting me know what school and/or Club he has played for, and in what position.

NETTIGUDI ESTATE,
MATTUPATTI P. O.
via PERIAKOLAM,
August 29, 1925.

STUART HAWKINS,
President,
Upasi Sports Club.

THE USE OF MANURES IN THE GROWING OF HEVEA
BRASILIANENSIS

The following is a report forwarded by Mr. H. C. Pinching, Association's Senior Scientific Officer in Malaya to Rubber Growers' Association, London:—

The value of manures in the rubber growing industry is a matter upon which there is a considerable diversity of opinion in planting circles. Even in Ceylon, where on certain rubber estates the annual application of artificial chemical manures has always been the custom, there still exist planters in that country who question whether such a procedure is advisable. Reference to the Rubber Growers' Association *Bulletin* for July, 1920, will show that as a result of my visit to that island in February and March of that year I reported as follows:—'The general consensus of opinion among the planters of Ceylon is that the satisfactory returns per acre, which many estates are now giving, are greatly due to the use of manures. A few of the people interested in rubber are somewhat sceptical of the benefits of manuring rubber, as they say that up to the present *reliable* data as to the effects of manuring are difficult to obtain and, therefore, the matter is still open to question. Of course, there is a certain amount of prejudice among planters in favour of the use of manures on account of the experience with manures in tea cultivation.'

In the writer's opinion it is natural that there should exist this diversity of opinions for the following reasons:—

(1) Very few comparative experiments have been carried out whereby reliable results have been obtained showing the true results (as measured in effect upon girth of trees and yields) of the manuring. General casual observations have been made and these observations may or may not have been influenced by prejudice or by preconceived ideas of what the results should be.

(2) The difference which occur in soils, when considered from the chemical, physical and biological standpoint, have received scant, if

any, attention in discussing the results of such manuring work as has been carried out. Thus Mr. X has used basic slag for manurial purposes and from general observations he is certain that marked benefits have been received from that work. On the strength of Mr. X's success, Mr. Y tries basic slag as a manure and finds it resulted in no benefits to the trees, indeed, possibly the trees look poorer for the treatment. Mr. Y therefore makes a general statement that manuring is of no use for rubber growing. Mr. Y has overlooked the fact, however, that he has been treating a different kind of soil, a different lie of land, etc., to that treated by Mr. X.

A WARNING

Grantham, discussing the results of the manurial work on the properties of the H. A. P. M. in Sumatra is careful to point out in his summary (*Archief Voor de Rubber Cultuur*, August, 1914) that 'Attention must be directed to the fact that the results described have been obtained on the special soil types peculiar to a part of the East Coast of Sumatra, and it by no means necessarily follows that similar results will be obtained on other soil types.'

With reference to Malayan soils, either taken as a whole or even in special cases it is still unproven whether it would be a profit-bearing procedure to use chemical manures in the growing of *Hevea*. Green manures, since they serve a dual purpose, cannot be viewed quite in the same light as chemical manures. Analysis of the soil does not assist greatly in finding out what kind of chemical manure it is advisable to apply to rectify deficiencies in the soil from its rubber-growing fertility standpoint. The following statement from the Chief Secretary's Annual Report for 1920 of the F. M. S. is of considerable interest in connection with the question of the analysis of soils of Malayan rubber estates :—

'The conclusions arrived at by collating the results of soil analyses for rubber estates are recorded by the Director of Agriculture in the following terms :—'

'It appears from the results of chemical analyses, that much of the soil now carrying rubber is exceedingly poor, and is losing its virginal fertility with such rapidity that artificial compensating elements must shortly be resorted to on a large scale. In many cases, not only is the surface soil being denuded of its plant nutrients more quickly than weathering can replenish the supply, but the underlying subsoil is in an unhealthy condition, and likely to become more so on account of the water table and the character of the subsoil water.

'No definite data have been obtained to show the actual relationship between soil acidity and rubber yields, but the high order of acidity exhibited by the majority of estates soils shows that an unhealthy condition for root development is the rule rather than the exception.

'In connection with soil analyses for the estates, it must be recorded that there is a lamentable lack of interest displayed by the planting community in the whole subject of soil investigation, and there appears to be no desire to improve soil conditions by following up analyses with experimental work or fertilization.'

'THE ONLY COMMENT'

The only remark which one can make in comment of the above statement is that generally speaking the growth of the rubber trees in Malaya, their yields and general development have been of such a nature to satisfy up to the present, those who have invested their money in the rubber growing industry. At the same time, however, several hundreds of acres of land unsuitable for the growing of rubber (to judge from the results obtained) have been planted up and, further, no one will deny that the rigid clean weeding method of dealing with areas under *Hevea* which was carried out for many years on the older estates has resulted in a great loss of fertility to the soil. In many cases the gradual retardation of the rate of growth of the trees planted on such areas has been very noticeable. To what extent this retardation is due to the gradual decrease in fertility or diminution of plant food in the soil is difficult to say, as in most cases of old areas two other factors—viz., Overtapping and overcrowding of the trees—have also played a part. In the more recent years efforts have been made on estates to reduce the effects of these last two factors by tapping more lightly, by resting the trees from tapping for periods to allow a better bark renewal, by thinning out so that the improved spacing might cause an improvement in the branching of the trees which would stimulate growth and improve the rate and nature of the renewal of the bark. Efforts have also been made to improve the soil conditions on many of these old areas by attempting to grow green manures and cover crops. Experience has shown that in many cases the establishment of cover crops or green manures on these old areas under rubber is very difficult, both the poverty of the soil and also the shade of the trees preventing satisfactory growth.

THE MERIT OF CHEMICAL MANURES

This naturally brings one to the question of the advisability on using chemical manures in the growing of rubber and this question seems to divide itself into the following sections:—

(1) The use of chemical manures to improve the fertility of impoverished soils which originally were fertile. The impoverishment can be produced either by 'wash' and loss of plant nutrients by leaching or by the land having been planted with some other crop prior to the planting of rubber.

(2) The use of chemical manures on naturally unsuitable soils to render them suitable for rubber growing.

(3) The use of chemical manures on ordinary fertile soils to give an increased return.

(4) In all the above instances what manures should be applied? In connection with the first section I would suggest, that in view of our ignorance upon the matter, it would be highly advisable for estates possessing such areas under *Hevea* to carry out properly conducted manurial experiments with different chemical manures. Different soils may respond to different manures and until experiments have been carried out no practical manuring scheme should be entertained. That improvement in growth, in appearance and, what is most important, in yield, can be obtained by the use of chemical manures with rubber trees growing on impoverished soils have been clearly demonstrated by

the careful experimental work, and the consequent field work carried out on the properties of the H.A.P.M. in Sumatra. A full account of this manurial work is given by Grantham in the *Archief Voor de Rubber Cultuur* for August, 1924. Accepting the possibility of producing an improvement in growth, vitality and yield of rubber trees by using chemical manures, the great question, with which one is confronted is whether this improvement, when measured in terms of increased latex yields or increased longevity (that is in terms of revenue bearing potentiality) is commensurable with the expenditure necessitated by the work. The late Mr. Kelway Bamber, in discussing the statements made in the Chief Secretary's Annual Report for 1920 with reference to Malayan soils (cf. *the Planter*, vol. ii, No. 2, p. 50) stated :—

' . . . he was aware that very little manuring was done in the F. M. S. His experience was that the planting community there was rather averse to it, as manuring did not increase the yield of latex to any appreciable extent, and, therefore, it was considered that it did not pay.

MANURING AS IN CEYLON AND MALAYA

' Manuring was practised much more generally in Ceylon than in Malaya because it had been found that though it did not necessarily increase the yield, it kept the trees in a healthy condition. One of the chief results was the ensurance of healthy bark renewal. In a poor soil, where cultivation and fertilization were neglected, the bark recovery was liable to be poor. The effect of manuring was mainly on the tree itself. It was an excellent preventive of disease, as it kept tree strong and healthy.

' But,' added Mr. Bamber, ' manuring in the Malay States is absolutely out of the question from a financial point of view. There would be plenty of indications if this inability to manure was affecting the trees to any great extent. As I have said, the bark renewal would be poor, the leaves would be smaller and lose colour, and the whole appearance of the trees would show that they were not receiving sufficient nourishment. These possible ill-effects of non-manuring could, however, be prevented to a very great extent by proper cultivation, thinning out, and the prevention of wash.'

With reference to manuring in Ceylon and maintaining the trees strong and healthy, Reeve, then Physiological Botanist to the Association in Ceylon, informed me when I paid the visit to the island, referred to above, that he considered that manuring had a marked beneficial effect in combating 'secondary leaf fall' and 'pod' diseases. It cannot be denied that repeated attacks by 'secondary leaf fall' on the trees, have a marked detrimental effect upon the vitality of the trees, their yields and the rate of bark renewal. Hence if the application of manure to the soil can only cause the trees to withstand these attacks so that the trees can continue their normal rate of growth and yield, then the value of the manuring is a measurable quantity.

INSUFFICIENT EVIDENCE

As has been already stated above, very little data is available expressing in a measurable quantity the value of using chemical manures for *Hevea* growing soils. Reference to my Report on my visit to Sumatra East Coast made in October and November, 1923, will show that I was informed by Mr. Grantham, that in some cases over 100 per cent increase of yield was obtained as a result of the application of certain manures.

Yields at the rate of between 500-600 lbs. per acre were being harvested from the plots manured with sodium nitrate as against a yield of 280 lbs. per acre from the unmanured plots. Further, no guide was necessary to inform a stranger which plots had received the sodium nitrate manures, for the effects of this manure upon the growth of the trees, their leaves and latex yield were remarkable. The growth of the trees on the unmanured control areas was poor, their branching scanty, and the comparatively few leaves they bore were of a sickly yellowish colour. On the other hand the trees on the manured plots had a much more vigorous growth, their leaves were plentiful and of a dark olive-green colour. According to Yates (*Archief Voor de Rubber Cultuur*, September, 1923), the rate of formation of latex vessel rings was accelerated by the application of various manures (sodium nitrate, calcium nitrate and ammonium sulphate) to the soils with which he was experimenting. It is essential to emphasize here that, according to Grantham, the use of basic slag, potassium chloride and lime was without effect on the two classes of soils experimented with, while superphosphate was actually harmful.

It was found on the H.A.P.M. that manuring with the sodium nitrate or ammonium sulphate every other year had nearly the same beneficial effect as a yearly application. About 5 lbs. of manure was applied per tree around which it was merely broadcasted. Mr. Grantham informed me that the manurial work cost about Gls. 40 per acre, i.e., Gls. 20 per acre per annum. Thus, assuming that the average increase of crop per acre when the work is carried out on a large scale is 200 lbs., then the extra crop costs ten cents (guilder) per pound for manure or if the cost is taken over the total crop per acre it works out at about 4 guilder cents per lb. of rubber harvested. Where an estate output is unhampered by respective legislation then the work of manuring giving such beneficial results as obtained on the properties of the H.A.P.M. is certainly justifiable from the increased revenue stand-point. Where 'restriction of output' legislation operates and where the ordinary cost of tapping per pound from unmanured fields is under four cents per pound, then viewed purely from a yield return stand-point, the manuring work would be hardly justifiable.

PRICES OF NITROGENOUS MANURES

To Malayan estates the cost of manurial work with chemicals would exceed, in all probability, that stated above. The H. A. P. M. operates very large areas and purchases the manures in very large quantities. As far as I can gather the present prices of chemical nitrogenous manures are as follows :—

A Kuala Lumpur firm quotes \$210 per ton for sodium nitrate (16 per cent nitrogen) and \$240 per ton for ammonium sulphate (20-21 per cent nitrogen). I have received another quotation of about \$133 per ton c.i.f. Penang or Singapore for ammonium sulphate. The Singapore Gas Company's price for ammonium sulphate is, I understand, \$250 per ton f.o.r.

Thus applying about 5 lbs. of manure per tree, i.e., approximate 4 cwt. per acre, the cost of the work, using locally procured chemicals, will be about \$50 per acre per application.

According to the late Mr. Bamber the rubber tree does not demand a rich soil and the physical character of the soil is more important than its

chemical character. In spite of this, however, I do not think it would be a commercial proposition to try to grow *Hevea* on naturally unsuitable soils with the hope that the application of chemical manures will assist the growth. Neither do I consider it advisable where companies possess areas in which, by the failure of the present planting of *Hevea* to grow satisfactorily, the unsuitability and poverty of the soil has been clearly demonstrated, to uproot the present poorly grown trees, apply chemical manures to the soil and then replant the area.

Sufficient evidence is to hand to demonstrate the possibility of improving the growth and yields of trees growing on impoverished soil by the use of chemical manures and one is naturally led to enquire whether an advantage commensurable with the outlay would be obtained by using such manures in good soils, where the growth of the tree is satisfactory and the yields per acre over, say, 500 lbs. per acre. Unfortunately no information is to hand as to the possibilities on this score. It is probable that the improvement might not be so great and further, by stimulating the growth of the tree to too great a degree, the possibility of rendering it more liable to attack by disease naturally arises. Still without a carefully planned experimental enquiry nothing definite can be stated on this question. The possibility of rendering the soil toxic to the rubber tree by over manuring must not be lost sight of.

WHAT MANURES TO BE USED.

The question of what manures to use must necessarily depend upon the results of experimental work. Neither chemical nor mechanical analysis would render much assistance in settling this question. Chemical analysis indicates that many Malayan soils exhibit a high order of acidity and that they are poor in nitrogen. Most old estates have carried out a certain amount of liming of the soil in view of this natural acidity of the soil, but, writing generally, I have never seen any marked benefits resulting from such work. It might be added that usually the amount of lime applied per acre in these cases was not sufficient to neutralize the natural acidity of the soil. According to Barrow-cliff (*Agricultural Bulletin*, F. M. S., November, 1924) the inland undulating land of the Peninsula has an acidity corresponding to 2-3 tons of lime per acre whilst the clays and peaty clays found near the West Coast would require 5-6½ tons to produce neutrality. Still it would appear that as some of the best rubber is to be found growing on distinctly acid soils, the question of acidity is not so important.

Having once found by experiment a chemical manure which is capable of stimulating the growth and yield of the rubber trees, either in the case of trees growing on impoverished or on good fertile soils, it is necessary, in my opinion, to continue such manuring in these areas. Otherwise when the stock of extra supplied plant food is exhausted the trees will have to go back to their premanurial days supply of food. Hence they will not be able to maintain the same extent of leaf and branch as they required with the increased food supply. The trees will then show signs of dieback and be very susceptible to attacks by different fungi which may do considerable harm. Thus any company in deciding to carry out any manurial work must be prepared to continue such work. Without such a provision I would suggest that it is better to leave the trees to make the best of the natural supply of plant food existing in the soil, or to try some green manure, the effects of which will be more lasting.

COMMERCIAL AND METEOROLOGICAL

I. The Rupee Exchange for the week ending August 29, 1925
Bank Selling Demand Draft on London

24th	25th	26th	27th	28th	29th
18 3/32d.	18 3/32d.	18 3/32d.	18 3/32d.	18 3/32d.	18 1/8d.

II. Summary of latest Market Reports and Prices to hand :—

(a) Some of the higher London Prices—

Highest prices realized on the London Market			Average prices obtained for tea			
Mark	Pkgs.	Price	District	Week ending August 1, 1925	January 1 to August 1, 1925	January 1 to August 1, 1924
(1) TEA (WEEK ENDING AUGUST 1)		s. d.		s. d.	s. d.	s. d.
(a) Annamallais—			N. India.	1 4'30	1 5'25	1 5'62
Kallyar ...	249	1 3½	S. India.	**1 3'80	††1 6'30	††1 6'10
(b) Central Travancore			Ceylon...	1 6'32	1 7'80	1 7'70
Bon Ami ...	75	1 4½	Java ...	1 0'74	1 0'80	1 2'48
Stagbrook ...	64	1 3¾	Sumatra.	1 5'99	1 4'48	1 4'52
(c) Nilgiris—			Nyassa-	Nil	1 1'50	1 4'18
Nonsuch ...	137	1 7½	land.			
Ibex Lodge ...	91	1 6¾				
(d) Shevaroy—						
Craigmore ...	104	1 5½				
(2) No. 1 COFFEE (WEEK ENDING AUGUST 1)						
(a) Mysore—						
Yelliemudloo ...	9	120s.				
(b) Coorg—						
Nakur ...	26	123s.				
Korthikad ...	22	123s.				
(c) Shevaroy—						
S. & Co. ...	62	128s.				
Total				* 1 4'92	† 1 5'72	† 1 5'99

** Based on 4,508 packages.

* Based on 67,872 packages.

†† " " 105,158 "

† " " 1,733,415 "

‡ " " 87,785 "

‡ " " 1,694,969 "

N.B.—A fresh selection of tea prices for the week ending August 1 is given as, owing to the August holidays, the London Tea Brokers' Association issued no Average Price List for the week ending August 8.

(b) *Précis of reports on London Markets received on August 31 and covering the week ending August 8—*

(1) *Tea.*—On account of the August holiday Tea auctions did not take place, but private sales at satisfactory prices indicated that the market was remaining firm.

(2) *Rubber.*—The market showed little improvement during the week and on the 6th ultimo, Messrs. Leslie and Anderson were quoting 3/8½d., 3/5¾d., 2/10¾d., and 2/6¼d., respectively for 'Spot', September delivery, delivery October to December, and delivery January to March.

(3) *Coffee.*—The continental demand continued and resulted in several lots which had previously been withdrawn from auction being disposed of privately at a very fair rate.

III. Weekly Rainfall Statement

From April 1, 1925, up to and including Saturday, August 29, 1925

Stations are arranged in order approximately south to north and those not in planting districts are shown in small capitals.

Stations	W.	P.	Total	Stations	W.	P.	Total
1. Kalthuritty.	3.31	54.96	58.27	17. Coonoor ...	0.32	13.25	13.57
2. Tenmalai ...	4.28	57.54	61.82	18. Kotagiri ...	0.10	N.R.	N.R.
3. Mundakayam.	6.58	109.65	116.23	19. Ootacamund	0.81	25.30	26.11
4. Peermade...	13.19	119.20	132.39	20. Yercaud ...	0.38	24.92	25.30
5. V'periyar ...	N.R.	N.R.	N.R.	21. Devala ...	N.R.	92.97	N.R.
6. Kalaar ...	22.71	150.21	172.92	22. Gudalur ...	7.03	52.40	59.43
7. Chittuvurrai	0.51	19.87	20.38	23. CALICUT ...	5.15	100.91	106.06
8. BODI'KANUR	N.R.	N.R.	N.R.	24. Kuttiyadi ...	13.47	128.44	141.91
9. COCHIN ...	1.21	75.68	76.89	25. Vayittiri ...	14.28	119.14	133.42
10. Mooply ...	6.03	75.52	81.55	26. Manantodi...	11.72	82.91	94.63
11. Pachaimalai	9.87	81.43	91.30	27. Billigiris ...	3.16	36.20	39.36
12. Mudis ...	N.R.	131.01	N.R.	28. Sidapur ...	2.80	50.13	52.93
13. POLLACHIE.	3.09	12.78	15.87	29. Somwarpett	8.89	54.96	63.85
14. Manjeri ...	8.27	84.70	92.97	30. Ballupete ...	3.66	56.12	59.78
15. Nilambur ...	7.10	71.08	78.18	31. MANGALORE.	4.35	117.93	122.28
16. Naduvattam	7.08	57.78	64.86	32. MADRAS ...	0.60	13.52	14.12

W = During the week.

P = Previously.

N.R. = No return.

The Planters' Chronicle

Recognized as the Official Organ of the U. P. A. S. I. (Incorporated)

Managing Editor's Postal Address: POST BOX 155, MADRAS

Do. do. Registered Telegraphic Address: UPASI, Madras

VOL. XX, NO. 37] SAT., SEPTEMBER 12, 1925 [PRICE, AS. 8

CONTENTS

	PAGE		PAGE
Editorial Notes ...	679	British Income Tax ...	689
Coffee in the East ...	681	Letters to the Editor—	
Care of the Soil ...	683	Coffee and Lime—Mr. R. D.	
Coorg Planters' Association—		Anstead ...	692
Extraordinary General		Commercial and Meteorologi-	
Meeting ...	689	cal ...	693

EDITORIAL NOTES

The programme of the Tocklai Experimental Station 1925 Cold Weather Course of Lectures has now been published; and intimation received that the U.P.A.S.I. have been allotted two seats at the Third Course arranged for the week ending November 30, 1925.

*The Tocklai
1925 Lecture
Course*

Accommodation will be available, but visitors are expected to bring their own personal servants and to provide their own bed linen and mosquito nets. Messing will be provided in the Jorhat Club.

It is requested that the names of those who will attend the different courses should be intimated at the earliest opportunity.

Will planters in Southern India who would like to attend these Lectures advise the Secretary, U.P.A.S.I., Post Box No. 155, Madras, without delay ; as immediate information should be given of any seats which cannot be filled so that such seats may be allocated to others.

London opinion seems to presage for the remainder of the year a tea market satisfactorily firm at prices round about the level established last year. It is satisfactory to note that, though the average price obtained for tea on the London Market has been '36d. lower this year than last, the average price for South Indian teas alone shows a slight increase this year as compared with last year to-date. In addition there is an increase of 25 per cent in the number of packages of South Indian Tea turned over at the higher rate.

The warning that our readers should receive with caution *The Straits Times's* estimate of the effect of the new assessment of Standard Production of Exports now appears to have been not out of place. *The Straits Times* as stated on page 634 of our issue of August 29, calculated that the permissible exports from Malaya for the quarter ending October 31, 1925, would be 9,428 tons in excess of the quantity exportable during the preceding three months. We now find that the Controller of Rubber Exports, Kuala Lumpur, officially estimates that the increase will only be 6,500 tons.

			Tons
Increase of allowance to 75 per cent	...		6,800
Increase of Standard Production to 500 pounds	...	...	600
Total	...		7,400
Less readjustment of native rubber	...		900
Net increase	...		6,500

The 900 tons reduction from native estates is the estimated result of an arrangement under which a special allowance to small holders decreases as the exportable percentages increase above 65 per cent. The total concession which was enjoyed by small holders up to the end of the last restriction quarter, i.e., July 31, equalled just on 14,500 tons per annum or 3,625 tons per quarter. This concession has now been reduced by 25 per cent owing to the increase of the exportable percentage from 65 to 75 per cent.

We are indebted to the General Secretary of the European Association for permission to reproduce in this issue an article on *income Tax* British Income Tax which was written by Mr. W. T. Fry for the July number of the *Association's Quarterly Review*. We imagine

many of our readers will be glad to note the article for future reference; and some may find it a source of pecuniary gain if it indicates a rebate which they are, though they knew it not, in a position to claim.

As those who have seen the moderately priced but most comprehensive *The Plantation Rubber Industry in the Middle East* which we reviewed on page 535 of our issue of August 1 are unanimous in its praise, and consider it would be a most valuable edition to the library of every Rubber Planter; the Secretary of the U.P.A.S.I. will be pleased to register orders from those who would like to obtain copies of the book; and will arrange to obtain a consignment from Washington if, as is expected, the demand justifies that course.

*Figari's
'Rubber in the
Middle East'*

Reuter's Trade Service informs *The Chamber of Commerce Journal* (London) that an official report, on the Government survey which has just been completed in connection with the inquiry into the suitability of Latin-American countries for producing rubber, states that the successful operation of a number of private rubber plantations in Mexico is regarded as proof that rubber can be produced there in commercial quantities and under profitable conditions. The rubber zones in Mexico regarded as suitable for the growing of plantation rubber amount to approximately 233,000 square miles. There are two great rubber zones, the zone of the Gulf and that of the Pacific. In the regions adapted for the cultivation of rubber along the Gulf wages vary between 1.50 and 3.00 pesos (1 peso = 4s. Ed.) a day, and on the Pacific between 1 and 1.50 pesos.

*Mexican
Rubber*

THE OUTLOOK

FOR

COFFEE IN THE EAST

The *Stephanodores* pest whose ravages on Brazilian Coffee were described on page 509 of our issue of July 25, has an economic significance which augurs well for the future of the Coffee growing industry in countries outside Brazil. The outlay required to keep this scourge within bounds is involving no less than an increase of 5 American cents per pound on production costs. In other words the margin of production costs has swung round in favour of non-Brazilian Coffee growers; who presumably are now benefiting from the enhancement of the world price of coffee by which the producers of Brazil are for the time being meeting the cost of the Anti-*Stephanodores* campaign. This procedure of passing extra production costs of an article on to the consumer and thus avoiding diminution of profits is of course only

practicable for producers who, like the Brazilians, control a predominant proportion of the world supply.

Again, even in such circumstances, it has its obvious limitations; for any advance towards prohibitive prices—unless of course the current rate of consumption by the consumers of the commodity concerned is already at an absolute minimum—is bound to cause a falling off in demand, which may quite well be sufficiently great to nullify completely all efforts to keep prices up, and in the event even bring them down to a level lower than actual production cost.

Production monopolists in general therefore can only arbitrarily force the price of their commodity up to an unduly high level when that commodity is so essential to the life of the community that it is beyond the power of the consumers to modify the demand. Further more the position of the Brazilian Coffee Producers in particular is rendered more precarious by the existence of many other sources—potential as well as in no inappreciable measure actual—from which coffee may be obtained.

This means that if the Brazilians continue their policy of forcing enhanced costs on to the consumers, those consumers will be all the more ready to resort in self-defence to retaliatory tactics on the lines indicated above. For if they find that the Coffee they require can only be obtained from Brazil at a very inflated price, they will turn their attention to other countries where coffee can be grown which will undersell Brazilian and yet leave producers' profits satisfactorily high.

Such a position of affairs is well within the bounds of possibility, and would undoubtedly awaken an increased interest in the Coffee markets of East. Satisfactory prices on a consistently remunerative level would be ensured; for the Brazilian producers—owing to the cost of combating Stephanodores—are no longer in a position temporarily to cut their prices down to a level below that at which their competitors can profitably produce. Indeed the boot would be on the other foot; for it would appear that a price is quite practicable which would give a satisfactory profit to countries untroubled by Stephanodores while entailing a loss for producers involved in an Anti-Stephanodores campaign.

Coffee can be grown practically everywhere in the Tropics on elevations from 1,500 feet upwards, given a rainfall of about 40 inches and freedom from frost; and the considerations suggested in this article may lead to land, which is presently Jungle and which would had Brazilian domination continued been devoted to Rubber or Tea, being opened up with Coffee instead. The most conservative estimates, for example, indicate that the Dutch East Indies, which now produce about 5 per cent of the world's coffee supply, contain some 5,000 square miles of virgin soil with adequate transport facilities where coffee could be planted out. Recent prices, we understand, have shown that in the East Coffee can be as profitable as either of the former commodities, but the trouble hitherto has been that fat years have been almost invariably followed by lean ones and Profit succeeded by Loss.

CARE OF THE SOIL

The following is a Paper which Mr. H. C. Pinching, the Association's Senior Scientific Officer, Malaya, prepared to read before the Planters' Conference held under the auspices of the Incorporated Society of Planters, at Kuala Lumpur on June 21, 1925:—

It is nearly fatuous for me to point out to you the importance of the soil factor in any agricultural pursuit. We sink our money, that is to say our capital, into the soil and trust that through the powers of that soil our capital will be returned with interest. We can liken our soil to a race-horse, the owner of which has plenty of money. He provides that horse with the finest equipment and houses it in the best of stables. At the race meeting he puts up the best jockey to ride that horse and yet, the success of the whole business really depends, not upon these things, but upon the qualities of the horse itself. So with a planting enterprise—the company may have plenty of money, it may provide the finest management possible, the equipment in the way of roads, buildings, factory and means of locomotion may be ideal and yet the success of the enterprise really depends mainly upon the fertility of the soil possessed by that company.

We could carry the race-horse analogy a little further. Say, the race horse is not a good goer, but only a second rate animal; under certain treatment and training one might eventually get it to develop into a somewhat passable racer! Still, that certain treatment and training may cost so much as to remove the whole racing business with that horse from the realms of economics and make it merely a non-revenue producing pastime. So with the soil; provided that there was no restriction upon the amount of money I spent I could grow crops upon the most unfertile soil. Still that would remove the matter from the field of business where one wants the returns to exceed the expenditure.

Thus we see we need at the outset a soil with a fair modicum of natural fertility and suitability of condition and lie for the crop we desire to plant. You will say that such is obvious and is really hardly worthy of notice, for after all one wouldn't try to plant, say, rubber on a macadamized road. Yet, in spite of the obviousness of this we all know very well indeed that thousands of acres of land, nearly as unsuitable as a macadamized road for planting Hevea, have been planted up in the past, and even in more recent years the fertility factor has not been given the consideration it should have received in selecting land for Hevea. Of course, in the early days, it was the rush for the 'quantity' rather than the 'quality' of acres planted which accounted for the planting up of unsuitable areas. To-day it is often the idea of 'finishing off the area' which is to blame. Anyway, had I the money which has been spent on the planting up and maintenance of unsuitable lands, from which not one cent of profit has been received, I should not have to spend my time as a rubber scientist! We have all seen such areas as these of which I speak. Ideal paddy land, rocky unfertile hills, undrainable morasses and the like! We have probably all experienced the upkeep costs of such areas as these, how that the maintenance, weeding, re-supplying, not to mention efforts to improve the conditions, all cost double or treble that of dealing with the good areas and how that the

returns, if any, have been very small. Often, after spending large sums to keep these 'dud' areas in the acreage of the Estate, we have eventually abandoned them.

Presuming, therefore, that we have been fortunate enough to secure for our planting an area with a reasonable modicum of fertility it is up to us to

(1) Maintain that fertility.

(2) Raise that fertility.

Let us consider the first point.

Why is it that we should have to take any measures to maintain the fertility of a soil, and how is it that a soil loses its fertility? In an ordinary arable land in temperate climates the taking of repeated crops is probably the main factor which is liable to impoverish the soil. In connection with a permanent cultivation such as rubber it cannot be so much what is taken from the soil by the trees which impoverishes the soil. I know that many planters speak of what rubber trees or weeds, even lalang, 'take out of the soil.' But what does the rubber tree 'take out of the soil' in the matter of soil constituents? Further it must be remembered that it is only the latex we take from an area—and that latex only contains about 1.5 per cent of mineral matter, i.e., an area giving 500 lbs. per acre per annum loses mineral salts from the soil at the rate of 7.5 lbs. per annum. The mineral matter contained in the leaves is put back into the soil when those leaves fall and decay. The mineral matter in the wood of the tree, for which I cannot give an accurate percentage figure, though I would suggest on an average it does not exceed 1 per cent, is merely locked up and could be returned to the soil if the trees are burnt *in situ* when we have finished with them. Thus you will appreciate that the 'taking out of the soil' by rubber is different from the 'taking out of the soil' by the annual crops at Home (or even tapioca here) where one removed practically all the plant from the spot in which it was grown. Thus with corn at Home—only the stubble is burnt and its ash returned to the soil—the other parts, the straw, the grain, is taken away. In the tropics, however, other important factors also come into action and we must, if we wish to preserve the natural fertility of our soil, take steps to prevent or to negative the working of these factors. Let us consider for a moment what is commonly known as 'virgin' land—as opposed to land which has already been under previous cultivation. What was the condition of that soil before we felled the jungle? We say that the soil was 'protected' by a dense cover of vegetation. But from what did the dense cover of vegetation protect it? This brings us to the two main agents for robbing our freshly opened-up soil of its natural fertility. They are (1) Rains (2) Sun.

(1) The torrential tropical rains are prevented by the vegetation from beating upon the surface of the soil. Thus their scouring action is prevented. Further the rain which falls to the ground through the branches, has lost its violence, and any tendency to soil movement, on account of its presence on the ground, is prevented by the roots of the vegetation. Since the rain loses its force when it comes into contact with the soil and as its free movement through the soil is hindered by the presence of roots, the leaching action of the rain on the soil, by which valuable

soluble salts are removed, is largely reduced. Further, and this is the most important point for Planters to consider, one of the very important elements necessary to the fertility of the soil is nitrogen. This is taken up by the soil from the air and humus through the agency of organisms so long as the land is covered. The nitrogen, which is known as 'fixed' nitrogen as it is held by these organisms in the soil is slowly converted into nitrites, and nitrates in which form it becomes soluble in water. This change, however, goes on much slower than the rate at which the nitrogen is taken up by the organisms, i.e. becomes 'fixed,' and hence the soil under cover gains in nitrogen content. As soon as the land is cleared and kept free from any cover this fixed nitrogen which has been stored up becomes converted into nitrites and nitrates and the fixation of further nitrogen ceases. Thus, as Russell puts it 'Land in sod gains nitrogen, land in fallow gains nitrate.' It must be remembered that the gain of nitrogen by the land in sod is a real gain but that the nitrate gain is not since it is only caused by the change of the fixed nitrogen already present in the soil. These nitrates and nitrites are soluble in water and the solution is taken up by the young plants in our new clearing. Hence one often finds that in some young areas the young rubber plants make very excellent progress for the first few years but eventually the rate of growth seems to fall off. I have in mind a planting which at one year old was one of the best I have ever seen, but now the trees are five or six years old the rate of growth appears to be nothing exceptional. What explanation can one find for this? Simply that when the land was first opened up the change from the fixed nitrogen to nitrates supplied the tree with an ample supply of valuable plant food. This change of nitrogen to nitrates continued to go on, but at a faster rate than the trees could take up the nitrates. What happened to the surplus nitrites and nitrates? They were leached out of the soil by the rain and lost. Eventually the supply of stored fixed nitrogen became considerably reduced and the supply of nitrates to the trees correspondingly fell off with the result that the rate of growth of the trees slackened. Had we kept our soil covered, then the change from 'fixed' nitrogen to nitrates would have been slower and we should have prevented the useless and reckless dissipation of the nitrogen stored in the soil.

(2) Sun. The dense vegetation which covers the soil in jungle land protects the soil from the sterilizing action of the sun. One often speaks of the purifying action of the sunlight—the same idea comes out in the name 'Sunlight' soap—and we all have notions connecting the dark, that is, the lack of sunlight, with disease. This idea of the purifying action of the sunlight is based on the fact that direct sunlight has a very harmful effect upon micro-organisms.

Let us consider these points further in connection with our 'virgin' land when opening up is completed. The rain comes down in torrents and washes our friable surface soil to lower levels. In this country the tin miners are often condemned for the silting of the rivers, but it would seem, judging from the denuded nature of many areas under rubber, that Planters are also responsible to some extent. By the 'wash' the lighter particles of the soil—which include humus and decaying organic matter, upon the presence of which the fertility of the soil depends—are carried downhill and we are left with the heavier mineral constituents. These eventually move downwards and we are ultimately left with the more compact and hard—but unfertile—subsoil.

Then there is the leaching action of the torrential rains. These rains absorb and remove certain soluble salts which we could well do with as nourishment for our plants. You are all well aware that this leaching action goes on and it is for this reason that the application of certain chemical manures to the soil (such as sodium nitrate) presents difficulties on account of the readiness with which this chemical is leached out of the soil by the rain and removed elsewhere. To make a detour for a moment in connection with this leaching action of the rains. You may, or may not, know that chemical analysis of the soils of Malaya, generally speaking, show that they are poor in calcium salts, that is to say they exhibit a high order of acidity. In the Chief Secretary's Annual Report for 1920, comments are made by the Director of Agriculture on this matter and he offers the following statement :—

' The conclusions arrived at by collating the results of soil analyses for rubber estates are recorded by the Director of Agriculture in the following terms :—

' It appears from the results of chemical analyses, that much of the soil now carrying rubber is exceedingly poor, and is losing its virginal fertility with such rapidity that artificial compensating elements must shortly be resorted to on a large scale. In many cases, not only is the surface soil being denuded of its plant nutrients more quickly than weathering can replenish the supply, but the underlying subsoil is in an unhealthy condition, and likely to become more so on account of the water table and the character of the subsoil water.

' No definite data have been obtained to show the actual relationship between soil acidity and rubber yields, but the high order of acidity exhibited by the majority of estate soils shows that an unhealthy condition for root development is the rule rather than the exception.

' In connection with soil analyses for estates, it must be recorded that there is a lamentable lack of interest displayed by the planting community in the whole subject of soil investigation, and there appears to be no desire to improve soil conditions by following up analyses with experimental work or fertilization.'

Now, in connection with this point it is interesting to note that of all the naturally occurring mineral salts in the soil, those of calcium are some of the most readily soluble. Russell in his book *Soils and Manures* in discussing soil losses, states, ' The constituent removed in largest quantity is calcium carbonate, no less than 8 to 10 cwts. per acre of this being washed away each year at Rothamsted.' Thus, in view of the manner in which the land in Malaya has been opened up and dealt with in the past and in view of the heavy rains which fall upon it, I think it is safe to say that we are lucky rather than unfortunate in having to deal with a soil naturally poor in calcium salts. Had such salts been present, it is reasonable to believe, in view of the treatment meted out to the soil, that they would have been quickly removed.

You probably have all heard the old saying 'lime and lime without manure will make both soil and farmer poor.' Why is that so? For the simple reason that the addition of the lime to the soil renders by the

formation of calcium salts, certain valuable constituents of the soil soluble. A certain amount of these soluble calcium salts is taken up by the crop (to its benefit) and the remainder is leached out of the soil by the rain water. A continuation of such a procedure simply means that the valuable constituents of the soil are wasted and eventually one reaches a stage when there are no more of these constituents in the soil to be acted on by the lime. At that stage the soil is unfertile. If we take 50 grams of soil and shake it up in 200 ccs. of water with 1 gram of quick lime, the resulting liquid will have a brownish yellow tinge and on analysis the liquid will be found to contain organic matter, potassium and other substances. These have been removed from the soil through the agency of the lime.

In spite of the fact that we are lucky in Malaya in having a soil poor in calcium salts, upon which Hevea appears to grow very satisfactorily, we must not lose sight of the fact that there is still a leaching out of the soil of other soluble constituents by the action of the rain water.

The next point we have to consider in connection with our virgin land is the action of the sun's rays upon it. We say that they have a sterilizing action. Generally speaking this sterilizing action is caused by the heat from the sun's rays. As you are all aware the soil is ordinarily inhabited by countless micro-organisms, bacteria, fungi, protozoa, algæ and these play an important part in affecting the fertility of a soil. They bring about the transformation of vegetable and animal matter into a form in which plant life is capable of receiving as a food. They affect the soil both chemically and physically. Some of these organisms are injurious to the growing plants—Rubber Planters need no reminding of the various root diseases which affect the rubber tree due to the presence of harmful fungi in the soil. There are, however, beneficial micro-organisms and it is with these we are now concerned. Any conditions set up in a soil which tend to destroy these must then be inimical to its fertility. This soil population is at a maximum a little below the surface of the top soil and from this point downwards it gradually diminishes until a depth is reached at which it practically disappears. The depth to which this population exists depends upon the conditions prevailing there. The life and extent of these micro-organisms are affected by and depend upon several factors, viz., temperature, moisture, food, aeration, and reaction of soil. Let us consider these factors briefly :—

(1) *Temperature*.—These micro-organisms are most active between 65°–95° F. As the temperature increases this activity diminishes and at 130°–140° F. action ceases and many are killed off. Take the case of our newly opened up 'virgin' soil. Often our virgin soil is dark in colour, on account of the presence of considerable quantities of organic matter, i.e. it is rich in humus. Being dark in colour the soil absorbs heat faster than if it were light coloured and during the middle of the day its temperature is often raised to 130° F. where it is unshielded. The micro-organisms find these conditions unfavourable and either they die off or descend to lower levels where other conditions (air supply) may be unsuitable. Hence, by excessive heat, the development of these micro-organisms is hindered and the soil decreases in fertility.

(2) *Food*.—Organic food is a very important food for practically all these micro-organisms and hence the state of the virgin soil is highly

suitable for their development and spread. That means that, given an opportunity, these micro-organisms are waiting to improve the fertility of our virgin soil.

(3) *Moisture*.—Bacterial activity almost ceases in a dry soil. Thus the desiccating action of the sun, such as is experienced in uncovered new clearings renders the top layers unfavourable to their development. The nature of the soil, itself, will be a factor deciding to what extent desiccation take place. Soils rich in humus hold up water more than light sandy soils.

(4) *Aeration*.—Bacteria are divided into two general classes, aerobic and anaerobic. The former require oxygen (i.e. air) for their growth and development, the latter only exist where no oxygen is present. By driving the air out of the soil we can change the nature of the micro-organisms living in the soil. Thus, supposing the land is flooded for a length of time, the water penetrates into the small interstices of the soil and drives out the air. The aerobic micro-organisms die and new kinds of micro-organisms which do not require air develop and thrive. The efficient aeration of the soil is a matter of prime importance to the agriculturist. One of the most important works of bacteria in the soil is to convert the nitrogen in the soil, which is derived from organic matter and from the soil air, into some soluble form (usually nitrates) in which it can be absorbed by the plants. Now, the micro-organisms which carry out this work of nitrification require air (oxygen) for their growth so that when no oxygen is present no nitrates are formed. Micro-organisms which can live without oxygen then commence to work and they undo just what the others had done, that is to say, they convert the nitrates and other nitrogen compounds in the soil into gaseous nitrogen, which escapes into the air.

(5) *Reaction*.—Very acid soils are not favourable to the work of bacteria. Thus in the case of the nitrifying bacteria; these produce nitrous and nitric acids which increase the acidity of the soil and tend to hinder their own development. If a base was present, such as lime, this would combine with these acids to produce salts and the soil would thus be kept freer from free acids and the work of the nitrifying micro-organisms would be unhindered.

Time forbids me going at great length into the important functions of the soil micro-organisms and the part they play in maintaining the fertility of the soil. The subject is a difficult one and much is yet not understood of their workings. Still the little I have said should be sufficient to impress you with their work and be a basis for our further deduction obtained from considering the fertility of our soils.

We thus see that when we open up virgin lands for the cultivation of different crops we place the soil under conditions differing considerably from those under which it existed when it was covered with jungle. It is through these changes in conditions that we run the risk of lowering the fertility of that soil. Estate managements are slowly awakening to the possibility of this lowering of the fertility and what it means in the long run to the growth, development and yields of the trees.

(The concluding instalment of this interesting paper will appear within the next few weeks.)

COORG PLANTERS' ASSOCIATION

(INCORPORATED)

Proceedings of an Extraordinary General Meeting held at the Circuit House,
Frazerpett, on Monday, August 10, 1925.

Present

Messrs. L. Newcome (*Chairman*) and A. E. J. Nicolls, Col. W. B. Bucknall, O.B.E., Messrs. G. R. Pearse, J. H. Sprott, C. L. J. Humphreys, F. Macrae, J. B. Reid, J. S. H. Morgan, C. J. Duncan, E. M. Gray, A. M. Webb, D. C. Mahon, E. Krohn and A. F. Magniac (*Honorary Secretary*).

Notice calling the meeting was read.

Alteration of Articles of Association.—The Extraordinary Resolution passed by the General Meeting on July 20, making the necessary alteration in Articles of Association for the reduction of the Committee was confirmed and passed as a special resolution.

Sidapur Experimental Station.—The position with regard to the Sidapur Farm was discussed, and the Chairman gave the meeting what information he had. The meeting confirmed the decision arrived at the Annual General Meeting.

With a vote of thanks to the Chair and the Honorary Secretary, the meeting terminated.

L. NEWCOME,
Chairman.

A. F. MAGNIAC,
Honorary Secretary.

BRITISH INCOME TAX

AND

EUROPEANS IN THE EAST

The incidence of the British Income Tax on persons residing in India appears to be little understood and in consequence of this many do not take advantage of the provisions of the various acts granting relief in certain circumstances.

Income Tax in Great Britain is normally assessable on the whole income of persons resident there from every source whatsoever and also

on any income derived from Great Britain in the case of persons resident elsewhere. Certain abatements are granted to persons resident in Great Britain which reduce the standard rate of tax, particularly in the case of the smaller incomes, and these abatements are also granted proportionately to non-resident persons in the ratio that their British income bears to their total income from all sources.

The principal abatements for 1925-26 are as follows :—

One-sixth of any 'earned' income, £135 to a single man and £225 to a married couple, £36 in respect of the first child and £27 in respect of each other child, £60 in respect of a housekeeper and £25 in respect of a dependent relative, £225 at half the standard rate of tax, and life assurance premiums.

As an example let us take the case of a married man with two children earning £600 a year and deriving £200 from British investments and paying £50 in insurance premiums.

If living in Great Britain he would be assessable as follows :

Earned Income	...	...	600
Investment Income	...	...	200
Total	...		800
Earned Income relief	...	100	
Marriage allowance...	...	225	
Children allowance	...	63	388
Taxable income	...		412
Taxed at 2/- in the £	...		225 = 22 10 0
Taxed at 4/- in the £	...		187 = 37 8 0
Total	...		59 18 0
Less life assurance relief £50 @2/-			5 0 0
Total	...		54 18 0

of which he has paid £40 by deduction from his investment income.

Now if he is resident in India he is only liable for the proportion of this tax that his British income bears to his total income, i.e. one-fourth or £13-14-6. As he has had £40 deducted from his dividends HE CAN RECOVER £26-5-6.

There need be no apprehension that by declaring one's total income from all sources any liability will be incurred on that part derived from

India. The total income has only to be shown in order to work out the rate at which repayment will be granted and under no circumstances can a person resident in India become liable for British income tax on the Indian portion of his income.

In addition to the above claims a person residing in India is entitled to complete exemption from tax on the interest of the following British Government securities: 5 per cent War Loans, 5 per cent National War Bonds, 4 per cent Funding Loan, 4 per cent Victory Bonds and Exchequer Bonds, and of all non-British securities, whether Government, Provincial, Municipal or Company. For instance, all British tax deducted from Indian Loans, East Indian Railway Annuities and the like can be recovered. These claims can now be made in respect of the whole period from April 6, 1920.

The only difficulty arises in the case of persons who are not wholly resident in India or where the wife resides in the United Kingdom, but the following few instances will meet the majority of cases that occur:—

(1) If a person is resident outside Great Britain for the whole of the financial year (ending on April 5th), he is treated as a non-resident. If his wife is resident in Great Britain, she is treated as a *femme sole* and entitled to separate rebates in respect of her own income. No tax is payable upon the husband's remittances from earned income.

(2) If a person normally resident in India visits Great Britain for any period not exceeding one-half of the financial year and maintains no residence there, he is treated as a non-resident.

(3) If a person normally resident in India spends more than half a financial year in Great Britain, or maintaining a residence there spends any part of the year there, he is assessable to British income tax for that year on all income brought, remitted or paid to him during his stay, subject of course to the usual abatements. Maintaining a residence means generally being the rated occupier of one and normally does not apply to a furnished house. It makes no difference if the house is taken in the husband or wife's name as for income tax purposes they are reckoned as one.

(4) If a person retires from India and goes to live in Great Britain for permanent residence he is liable for tax as a resident from the date he arrives there.

(5) If however his future plans are uncertain and on retirement he only goes there for a holiday with the intention of looking around to see where to live, possibly abroad, he should not be treated as a resident until such time as he has shown by his movements whether he intends to make England his home or not. These cases are often extremely difficult and require the most careful handling. The Inland Revenue authorities are very inclined nowadays to endeavour to treat even quite temporary visitors as permanent residents, much to their disadvantage.—WILFRED T. FRY (*in the European Association's 'Quarterly Review'*.)

LETTERS TO THE EDITOR

Coffee and Lime

THE EDITOR,

THE 'PLANTERS' CHRONICLE',

MADRAS.

SIR,

Although I am enjoying a much-needed rest in the old country I have not lost interest in the trials and troubles of my very good friends the planters, and I noticed in your issue of July 11 (*vide* page 481. Ed.), that one of them complains that the application of lime to coffee is apt to produce an attack of leaf disease. I am not altogether convinced that this is due to the lime nor that it always happens, but it is a question which will repay investigation and it might well be one of the problems taken up for study at the new coffee experiment station which it is proposed to open in Mysore. I trust that the great loss which South India has sustained in the retirement of Dr. Coleman (but cf. page 530, issue of July 25, Ed.) will in no way hamper this scheme, though I feel sure it will sadly miss his enthusiasm.

The efficiency of lime when applied to the soil depends entirely upon its degree of fineness and in how far it can be intimately mixed with the soil. It is for this reason that slaked lime is usually recommended as the best form in which to apply it, for slaked lime is a powder in an extremely fine state. If any form of calcium carbonate, either shells or a good grade of kunkar such as exists in Mysore, could be ground to an equally fine state it would act just as well, but herein lies the difficulty.

Experiments reported upon by the Ministry of Agriculture in England showed that in order to do any good the limestone must be ground to a degree of fineness of one-hundredth of an inch, that is to say the fineness of a high grade basic slag.

I understand that no firm in South India possesses the necessary machinery to reduce shell or kunkar to this fine state of division, and the samples of ground limestone which have been submitted to me from time to time do not even approximate to it.

I would refer your correspondent to the following articles on the subject which will be found in back numbers of the *Chronicle*, vol. xv, p. 115 and vol. xvi, p. 707.

Yours, etc.,

RUDOLPH D. ANSTEAD.

BOURNEMOUTH,
August 14, 1925.

BANGALORE—CENTRAL HOTEL, 'The best in the Station'.

COMMERCIAL AND METEOROLOGICAL

I. The Rupee Exchange for the week ending September 5, 1925

Bank Selling Demand Draft on London

31st	1st	2nd	3rd	4th	5th
18 5/32d.	18 5/32d.	Holiday	18 5/32d.	18 5/32d.	18 5/32d.

II. Summary of latest Market Reports and Prices to hand :—

(a) Some of the higher London Prices—

Highest prices realized on the London Market			Average prices obtained for tea			
Mark	Pkgs.	Price	District	Week ending August 15, 1925	January 1 to August 15, 1925	January 1 to August 15, 1924
(1) TEA (WEEK ENDING AUGUST 15)		s. d.		s. d.	s. d.	s. d.
(a) Annamallais—			N. India.	1 2·53	1 5·18	1 5·64
Pannimade ...	143	1 4	S. India. **1	3·50	††1 6·13	††1 6·10
Thoni Mudi ...	257	1 4½	Ceylon...	1 6·30	1 7·72	1 7·69
(b) Central Travancore			Java ...	0 11·60	1 0·84	1 2·52
Twyford and Ashley.	214	1 4	Sumatra.	1 0·37	1 4·29	1 4·72
Woodlands ...	22	1 6	Nyassa-land.	1 0·61	1 1·41	1 4·18
(c) Kanan Devans—						
Chundavurrai ...	78	1 7½				
Periavurrai ...	299	1 6½				
(d) Nilgiris—						
Nonsuch ...	93	1 8½				
Woodlands ...	76	1 7				
(e) Nilgiri-Wynaad—						
New Hope ...	86	1 3½				
(f) North Travancore—						
Kalyar ...	19	1 1½				
(g) South Travancore—						
Poonmudi ...	132	1 3				
			Total	* 1 3·91	† 1 5·65	† 1 6·01

** Based on 6,669 packages.

†† " " 111,827 "

‡‡ " " 89,702 "

* Based on 77,290 packages.

† " " 1,810,705 "

‡ " " 1,749,631 "

(b) *Précis of reports on London Markets received on September 7 and covering the week ending August 15—*

(1) *Tea.*—A fair amount of South Indian Tea was up for auction when the sales were resumed during the week under review. The inferiority however of the majority of the parcels resulted in the average price being 0.3d. lower than that which was realized a fortnight before. Nevertheless as indicated by our figures on the previous page good liquoring qualities were in demand and fetched an undiminished price.

(2) *Rubber.*—During the week under review the market in both 'Spot' and Forward Contracts declined by about 4d. a pound on the rates which we quoted on page 678 for the week ending August 8.

(3) *Coffee.*—There is little to report under this head, as practically all the Coffee offered at the resumed auctions during the week under review was Central and South American; but there was a steady private demand for East Indies of superior quality which may presage an autumnal rise in price.

III. Weekly Rainfall Statement

From April 1, 1925, up to and including Saturday, September 5, 1925

Stations are arranged in order approximately south to north and those not in planting districts are shown in small capitals.

Stations	W.	P.	Total	Stations	W.	P.	Total
1. Kalthuritty.	1.66	58.27	59.93	17. Coonoor ...	Nil	13.57	13.57
2. Tenmalai ...	0.81	61.82	62.63	18. Kotagiri ...	0.53	N.R.	N.R.
3. Mundakayam.	0.94	116.23	117.17	19. Ootacamund	0.21	26.11	26.32
4. Peermade...	1.35	132.39	133.74	20. Yercaud ...	1.07	25.30	26.37
5. V'periyar ...	N.R.	55.21	N.R.	21. Devala ...	2.41	N.R.	N.R.
6. Kalaar ...	5.29	172.92	178.21	22. Gudalur ...	1.16	59.43	60.59
7. Chittuvurrai	0.44	20.38	20.82	23. CALICUT ...	2.17	106.06	108.23
8. BODI'KANUR	Nil.	N.R.	N.R.	24. Kuttiyadi ...	3.14	141.91	145.05
9. COCHIN ...	0.95	76.89	77.84	25. Vayittiri ...	2.41	133.42	135.83
10. Mooply ...	0.88	81.55	82.43	26. Manantodi...	3.19	94.63	97.82
11. Pachaimalai	1.71	91.30	93.01	27. Billigiris ...	0.88	39.36	40.24
12. Mudis ...	N.R.	N.R.	N.R.	28. Sidapur ...	0.43	52.93	53.36
13. POLLACHIE.	0.27	15.87	16.14	29. Somwarpett	1.22	63.85	65.07
14. Manjeri ...	0.97	92.97	93.94	30. Ballupete ...	0.65	59.78	60.43
15. Nilambur ...	2.25	78.18	80.43	31. MANGALORE.	2.12	122.28	124.40
16. Naduvattam	N.R.	64.86	N.R.	32. MADRAS ...	Nil	14.12	14.12

W = During the week.

P = Previously.

N.R. = No return.

The Planters' Chronicle

Recognized as the Official Organ of the U. P. A. S. I. (Incorporated)

Managing Editor's Postal Address : POST BOX 155, MADRAS

Do. do. Registered Telegraphic Address : UPASI, Madras

VOL. XX, NO. 38] SAT., SEPTEMBER 19, 1925 [PRICE, AS. 8

CONTENTS

	PAGE		PAGE
Editorial Notes ...	695	Nilgiri-Wynaad Planters' Association—General Meeting ...	706
The Submerged Nine-tenths...	697	Letters to the Editor—The Golf Competition in 'Planters' Week' ...	707
Malaria by Dr. W. H. Thyne...	698	Exports of Tea, Coffee and Rubber from South Indian Ports during July, 1925 ...	708
District Notes ...	700	Commercial and Meteorological ...	709
Messrs. Charles Hope & Sons' Rubber Market Review ...	701		
The Mysore Planters' Association—Extraordinary General Meeting ...	703		

EDITORIAL NOTES

We doubt not that our readers peruse our advertisement pages week by week; with benefit, mutually to themselves and our advertisers, and incidentally to *The Planters' Chronicle* or in other words the U.P.A.S.I.; but some of our outside advertisements are so arresting, that we insert this note to obviate any possibility of the U.P.A.S.I. publication advertised on page 18 being overlooked.

Book on Proceedings, 1925
The Hon. Sir C. P. Ramaswamy Iyer, Law Member with the Government of Madras in the course of an address to the Travancore Cardamom Planters' Association at Bodinayakanur on Sunday, the 6th instant, said :—'It was time to take a lesson from the activities of the European Planting community in South India. Their enterprise, devotion to the common interest, and tremendous consolidation of forces and energies alone made it possible for them to come here from far off places and establish themselves in a position of great importance and prominence.'

The Mercantile Bank
The Manager of the Madras Branch of the Mercantile Bank of India, Limited, informs us that his Directors have declared an Interim Dividend at the rate of 16 per cent per annum less Income-Tax for the half-year ended June 30, 1925.

It is somewhat disconcerting to note from the Board of Trade returns that the United Kingdom stocks of Tea at the end of July *Tea Stocks* were no less than 163½ million lbs. as against 119 million lbs. and 113 million lbs. respectively at the end of July 1924 and July 1923. The large majority of the accumulations is however composed of the lower grades, and demand for high class teas is therefore unaffected by the increase in the stocks, and continues to be extremely keen.

Messrs. Charles Hope and Sons' comprehensive review of the near future of the Rubber market, which we are publishing in *Rubber-Supply and Demand* this and our next issue, shows that the consumption of rubber during the first half of the present year has been at a rate of well over 550,000 tons per annum; but as the review in question itself points out it is unlikely that the actual consumption in 1925 will equal that figure because activity in Rubber manufacturing circles almost invariably declines during the second half of the year. Making due allowance for this consideration it would appear that the actual figure will eventually prove to be nearer to the American Rubber Association's estimate of 540,000 tons than to Mr. A. W. Still's which was lower by over 50,000 tons. These estimates, we may remind our readers, were given on page 612 of our issue of August 22, 1925.

Turning to 1926 we have received this mail from Messrs. Fearon and Co., Kuala Lumpur, the estimate reproduced below :—

Rubber

<i>Consumption, 1926</i>			<i>Production, 1926</i>		
		Tons			Tons
America ...	...	424,000	Malaya ...	...	248,500
Germany ...	...	50,000			
France ...	...	45,000	Ceylon ...	...	58,500
United Kingdom	...	35,000			
Canada ...	...	16,000	Dutch Indies	...	200,000
Japan ...	...	17,000			
Russia ...	...	13,000	India and Borneo	...	30,000
Italy ...	...	10,000			
Others ...	...	10,000	Wild Rubber	...	35,000
Total ...		620,000	Total ...		572,000

It will be noticed that this firm's estimate of the 1926 consumption is markedly higher than the estimates of the Rubber Association and Mr. Still; whereas on the other hand its estimate of the 1926 production is extremely conservative when compared with theirs.

Mr. M. D. Kennedy, Secretary of the Rubber Workers' Union of Australia, states that the Australian Rubber trade is undergoing extraordinarily rapid expansion, owing to Australian manufacturers obtaining for the first time orders for equipping new cars with tyres and tubes. The potentiality of the expansion he says may be gauged by the fact that in Victoria alone 10,000 motor tyres and tubes are now being manufactured weekly and this output is only sufficient to equip a very small proportion indeed of the cars sold. The turnover in such side lines as tennis balls and rubber boots and shoes is also showing a striking increase.

*Activity in the
Australian
Rubber Trade*

THE SUBMERGED NINE-TENTHS

Syed Erfan Ali, an authority on agricultural conditions in India and especially in Bengal, adds another letter to the long series on the present day condition of rural India which *The Times* (London) has received from both English and Indian Correspondents in the course of present year.

His review of the situation concludes with the following words :—

'India is an agricultural country and the majority of its population will remain agriculturists. Their rights and privileges must be determined before general improvement is possible. In my opinion a Royal Commission should be appointed at once. There have been many commissions before at the instance of the 10 per cent of the population who constitute the INTELLIGENTSIA. Is it too much to ask that a Commission for the benefit of 90 per cent of the population should be appointed forthwith for the purpose of holding an inquiry in respect of the condition of rural India?'

The space given of late by *The Times* to this aspect of the constitutional position indicates that the best informed opinion at home considers it a matter on which even people with only a general interest in India should be kept well advised. *A fortiori* it should be a matter of even greater concern to the planting community who afford congenial employment to hundreds of thousands of the agricultural class. Such problems as the prevalent insecurity of tenure, the exorbitant rates of interest charged on unavoidable borrowings, the uneconomic sub-division of small holdings, absentee landlordism, the subinfeudation of property, the Cornwallis settlement under which the landlords' contribution to the Revenue is immutably fixed, the prevention by caste usages of interoccupational movement of labour and of the use of certain manures, the inability of the ryot to form conclusions on questions of more than purely village import, the susceptibility of the labourer to disease owing to ignorance of hygiene, and last not but least the unsuitability of elementary education which was dealt with on page 613 of our issue of August 22, are of course present in outline at any rate to the minds of observant well-wishers of the peasantry of this land. Even such observers however have infinite scope for study of economic detail, and there are for example few who will be not surprised at the statement made at the last Bangalore Conference of the Indian Board of Agriculture that the annual economic loss involved in the maintenance (owing to religious scruples) of 25 million superfluous cattle was no less than £117 million or more than four times the amount which the Land Revenue brings in.

Theoretically of course the ryots' interests are safeguarded and extortion and exploitation to his detriment prevented by their representatives in Council, but in practice there is but little political restraint on the activities of wily and unscrupulous landlords; and an improvement in the present state of affairs is best looked for from work such as the Pusa Institute and the Provincial Agricultural Departments are doing so admirably, from an extension of Medical and Sanitary activity, from a more suitable elementary educational curriculum, from economic and fiscal enquiries such as are being undertaken by the Committees appointed this year, and perhaps as a last resource from a Royal Commission such as

Syed Erfan Ali suggests. Such commissions need not necessarily be nugatory: witness what the Irrigation Commission accomplished for the Punjab and Sind.

In this Presidency as in others the planting community with its specialized department can take just pride in the fact that it is well in the van of the workers in the Scientific Field. Documents such as the Labour Commissioner, report, reproduced on page 664 of our issue of September 5th, show too that, despite the adverse and often ill-informed criticism levelled against it from time to time, the community is well ahead of public opinion in matters of Labour welfare such as accommodation and hygiene.

MALARIA

BY

Dr. W. H. THYNE, MEDICAL OFFICER,
MANANTODDY GROUP

Malarial fever is by far the most important disease met with in planting districts. The annual mortality due to malaria and the results of malaria is very large: in addition, for every death that occurs there are many more attacks and these represent an incalculable amount of suffering and loss of working power amongst the coolies. On looking through records one finds that at least 98 per cent of deaths amongst coolies is due to the following:—

Malaria;
Pneumonia; and
Dysentery.

Malaria.—Deaths from malaria are invariably due to repeated attacks, in some cases, very few, to cerebral malaria. Malarial fever itself is very easy to cure, but unfortunately one cannot get the coolie to realize that prolonged treatment is necessary, though this difficulty can soon be got over with a little persuasion. One often sees on the estates coolies suffering from Jaundice, Dropsy and extreme Anæmia; these conditions are invariably the results of malaria. One must bear in mind that Hook-worm disease which is very prevalent on the estates also causes Dropsy and Anæmia; and, when cases of this nature are met with, it is always wise to treat the case for hook-worm as well as for malaria.

Pneumonia.—A very large number of cases are treated on the estates for pneumonia and the mortality amongst these cases is very high. If the blood of these pneumonia cases were to be examined the malaria parasite will be found in at least 90 per cent of the cases. The coolie goes out to work feeling quite well, but suddenly gets an attack of malaria while on the field and during the perspiration stage he catches a chill and develops pneumonia. He is taken to hospital as a case of pneumonia and treated as such, and the question of malaria is entirely omitted with the result the patient dies. Every case admitted to hospital for treatment with signs of pneumonia should have the blood examined for malaria and if no microscope is available it won't do any harm treating the case for malaria as well as for pneumonia.

Dysentery.—Dysentery is very common and in most cases it is one of 'Malarial Dysentery.' If the temperature of these cases are recorded they will be found in the majority of cases to run a typical malarial course and the blood if examined will be found to contain the malarial parasite. In these cases also if a microscope is not handy the patients should be treated for malaria as well as for dysentery.

The question now arises how are we to prevent the coolies from contracting malaria and also to prevent them from getting relapses of malarial fever.

A. *Prevention.*—(1) Do away with breeding places. This is neither an easy or satisfactory way of dealing with the matter. This no doubt can be done, but it would take several years and involve tremendous expenditure. Much however could be done to reduce the number of breeding places, e.g., filling up small pools and a general tidying up of the compounds with removal of empty tins, broken pots and bottles and cocoanut shells. The compounder of the estate should see to this and he should pay more particular attention to this work during the months of April, May and June.

(2) Protecting the bodies of coolies from mosquito bites. Nothing can be done in this direction for the coolie.

(3) The prophylactic administration of quinine or cinchona febrifuge. This method, which at first would appear to be impracticable, is very easily carried out after a little persuasion. This method will be found to be very useful during the months of April, May and June when the disease is most prevalent. A mixture containing 10 grains of cinchona febrifuge should be given by the compounder to the coolies on morning or evening checkroll twice weekly. With the help of the field writer and the maistries he wont find any difficulty in getting the coolies to take the mixture. Cinchona febrifuge costs Rs. 9 per pound as compared with quinine which is Rs. 29 per pound, it is equally as good as quinine in its action and in some cases more so probably because it contains in addition to quinine all the other alkaloids of cinchona bark.

B. *Prevention of Relapses.*—It is wise to introduce a malarial register on each estate. The object of the register being to keep an accurate record of all new and old infections of malaria, to give the authorities an idea of the most malarial infected areas on their estates and also to ensure that coolies who are infected with malaria receive 14 consecutive days' treatment with Mixture Cinchona Febrifuge or Quinine after they have been taken off the sick list and returned to duty. The mixture should be given to the coolies by the compounder either on morning or evening checkroll, and if a coolie has absented himself the compounder should make every effort to trace him so that he will not miss his treatment. These registers should be maintained by the compounder of the estate. He should enter in the register the name of any coolie he has diagnosed as malarial. During the period the coolie is on the sick list and unfit to attend work he should be given the mixture three times a day. Immediately he is taken off the sick list and attends work the 14 days' consecutive treatment starts. If a coolie gets a relapse of malaria during the course of his 14 days' treatment his name should again be entered in the register, but in red ink; and a note made against the first entry to show that a relapse has occurred during the course of treatment; and the whole

treatment should start again. Any coolie getting a relapse after he has completed his course of treatment should have his name entered again in register, but in red ink, and the whole treatment started again.

All new infections should be given a serial number in the register and all old infections entered in red ink.

These registers are in existence on some estates and the maistries are taking a great deal of interest in them and a decided improvement in the health of the coolies on these estates is noticed and relapses are not so frequently met with.

It must be borne in mind that the human being is the host of the malarial parasite and not the mosquito and if we could keep down the infection amongst coolies we will certainly reduce malarial infection on estates.

Specimen Page of Malarial Register

Serial No.	Date	Name	Age	Caste	Sex	Line No. ¹	DAYS OF TREATMENT ²				
							1	2	...	13	14
									N.B.—Ten columns are omitted here.		

¹ All coolie lines should be numbered.

² The compounder should mark 'P' or 'A' in columns for days of treatment. P = Present, A = Absent. Fourteen days' consecutive treatment with Mixture Cinchona Febrifuge or Mixture Quinine after the coolie has been struck off the sick list and returned to duty. The best time for administering the drug is on either morning or evening checkroll. If the coolie is absent from checkroll the compounder should go to the lines and trace him out.

DISTRICT NOTES

Coorg Paperchases

On August 31, Mr. and Mrs. Pearse, Mr. and Mrs. Magniac, Mr. and Miss Mahon and Mr. Potter were 'At Home' to the District.

In the morning a paperchase was held in the Somwarpet country which affords more scope than the Belur 'bané' where the chase for this 'At Home' has been held in previous years. Messrs. Mahon and Webb were responsible for the course and, acting as hares, started off across the Alikati road 'bané.' For the first mile or so the line was identically the same as that taken in the June chase but recent rain made the going somewhat sticky and there was a good deal of slithering at the jumps. Once across the stream, which runs on the left of the road, the going improved and 'scent' held well up the further slope. After the gap jump on the top the trail turned sharply to the right across ploughed land to the in-and-out at the by-road which crosses the hill. An upset at this point caused a slight halt but fortunately no damage was done and the 'hounds' were soon running over the

PHIPSON & Co., Ltd.

WINE MERCHANTS

SOLE AGENTS FOR

CHAMPAGNE—

Veuve Clicquot
G. H. Mumm
Pol Roger
Charles Heidsieck
Ayala, etc.

PORTS, SHERRIES, MADEIRAS—

John Harvey & Sons
Graham & Co.
Butler Nephew & Co.
Saccone & Speed, etc.

FRENCH WINES—

Nathaniel Johnston
A. de Luze
C. Marey Liger Belair

SCOTCH WHISKIES—

John Begg
Jock Scott
Thomson's G. H. L.
MacKinlay's 'M.L.'
etc.

BEERS—

Pilsner Urquell 'Light
Bitter'
Barclays London Lager

GINS—

Coates' Plymouth
Burnett's London Old
Tom

Special Terms to Planters
PHIPSON & Co., Ltd.

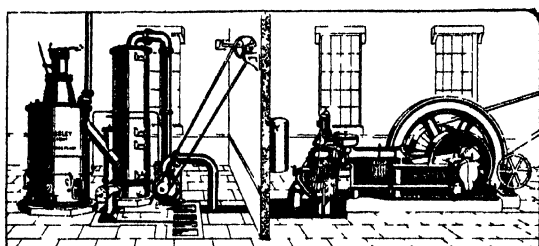
Telegrams : 'PHIPSON'
BOMBAY.

6 Apollo Street,
BOMBAY.

CROSSLEY

GAS ENGINES AND SUCTION GAS PLANTS POWER FROM REFUSE

The combination of a 'CROSSLEY' Gas Engine with a 'CROSSLEY' Producer Gas Plant is the most Economical method of generating power.



(Illustrating Suction Gas Engine and Wood Refuse Plant.)

The Special Features embodied in 'CROSSLEY' Engines and Plants are the results of over 57 years continual experience in the manufacture of Really High Class Internal Combustion Engines.

Over 100,000 Engines totalling over 2,000,000 Horse Power have been built and supplied

Sizes from 4 B. H. P. up to 500 B. H. P.

To use all kinds of Carbonaceous Fuels

Crossley Brothers, Ltd.

14, BROADWAY

MADRAS

P.O. Box 1249

Tel.: 'Combustion'

grass land towards Somwarpet. 'Scent' failing brought about a prolonged check and it was some ten minutes before it was discovered that the 'hares' had doubled back and lifting the trail for a short distance had gone down again to the paddy fields bordering the stream. At this point the 'scent' was completely lost, repeated casts round were in vain and it was finally decided that as the stream could only be crossed at one point it would be better to try and pick up the line there. After following what seem to be a heel-way almost back to the Alikati Road, 'hounds' once more picked up the true line which led off away from Somwarpet parallel to the road. This it finally crossed and a further check brought the 'pack' together again. With difficulty the 'scent' was puzzled out and led back along the slopes below the road, down a boulder-strewn track where going was decidedly ticklish. Eventually however the pace improved until on rounding a corner the 'Hunt' viewed the 'hares.' The latter had been waiting a considerable time for the 'hounds' to appear in order to end the run with a dash for home.

In spite of the frequent checks and somewhat soft going the 'chase' was decidedly enjoyable. It was good to see a decided improvement in the field which consisted of Miss Mahon, Messrs. Bucknall, Davies, Humphreys, Iron, Mahon, Maurice, Morgan, Nicolls, Owen, Potter, Sprott and Webb. The largest number 'out' for a long time.

Lunch followed at the Belur Club, where L....N....bashfully sang of the merits of fruit, as a rival to Glaxo in the making of bonny babies. In the afternoon Golf worked off the feeling of repletion so that justice could be done to Tea . . . and so to bed.

W. A. D.

Messrs. CHARLES HOPE & SONS' RUBBER MARKET REVIEW

(Recently issued as a Circular to the Trade)

According to the reader's personal interests the Rubber Market this year has either suffered from, or benefited by, the fact that the raw article is incapable of making an increase in production sufficiently rapid to respond to a sudden increased demand.

As the year progresses it seems more and more certain that consumption has increased and is increasing faster than was anticipated. Reports from various countries show that the motor industry is rapidly expanding, but even when a big increase in consumption is expected, it seems hardly possible that the position of rubber should have changed so rapidly that consumption should continue to exceed production in the near future, when a further 25 per cent of the standard production can still be released.

To prophesy on the future trend of prices of a commodity, which about a year ago was difficult of sale, and this year sold at a price that was five times greater than it was twelve months before, is an unenviable task, and one that we prefer to leave to others.

We still believe that at the end of this year actual consumption will not be in excess of production, but now that stocks have been reduced to such an absurdly low level, production may exceed consumption for many months without affecting the position to any extent.

As we have written before, when the commodity is selling well over the cost of production the increase in supplies and discovery of available stock that takes place is usually surprising.

With the restriction scheme only allowing the production of 50 to 55 per cent of the standard production from the restricted area, it was, knowing the provisions of the scheme, a foregone conclusion that if restriction were continued prices would have to rise.

If the price is maintained at over 1s. 6d. up to May next year the permitted shipments from the restricted area will then be 5 per cent more than the standard production. Divergent views are held as to whether the restricted area can produce even the full standard allowance; this is a point of great importance, as when considering how much rubber may be shipped, it is, of course, very necessary to know how much could be produced.

When contemplating the future we, therefore, have two unknown factors to contend with:—

1. What is the consumption likely to be?
2. How much rubber may be expected to be produced?

The first of the above queries is the most difficult to answer. The consumption in Central Europe is sufficiently small to prevent any error in estimating the demand from that quarter from very much upsetting the total figure at which we arrive. When, however, we attempt to estimate the total World consumption we may, by being a relatively small percentage out in the estimate of increase or decrease, make an error which amounts to a very large quantity of rubber. For example, if World consumption in 1924 is taken at 470,000 tons, an error of 5 per cent in the increase to be expected would make a difference of over 23,000 tons. When World stocks are at a reasonable level an unexpected increase in consumption of 23,000 tons spread over the whole year should not affect prices to any great extent, but when stocks have been so reduced that, for all practical purposes, they are a negligible quantity, any sudden or unexpected increase in consumption is immediately felt, and, moreover, felt very strongly.

We do not believe that stocks would have been reduced to their present level had not the biggest consumers deliberately held off the market, adopted a hand-to-mouth policy, and so prevented the Stevenson Restriction Scheme from following its natural, and, to our mind, logical course.

As we have mentioned more than once in previous reviews, the hand-to-mouth policy adopted by American consumers, although apparently very successful at the time, was not sound business. It was proved to be considerably more dangerous than the perpetrators of the policy seemed to realize. Had they continued their normal buying policy and therefore not reduced their stocks to below the safety line, the price of rubber this year would not have touched 4s. 6d. per lb., and consequently the restriction scheme would not have been blamed for rubber on the Spot being at a high price. Strictly speaking, the high prices that have been experienced are really due to the lack of business acumen of others.

We are rather inclined to think that the consumption in the U.S.A. has been considerably larger than we, or as far as we know anyone else, estimated. Official figures are issued every week, giving the stock of rubber held in London and Liverpool. These figures are kept with the most scrupulous care, as witness the adjustments which are occasionally made, which sometimes amount to only a few tons. Of late years figures have been published in New York giving the stock of rubber held in the U.S.A. Probably conditions in that country make it difficult to give the stock in the aggregate. However, figures are issued which are taken to be more or less official. At various times these stock figures have been rather difficult to adjust with the figures issued of consumption and arrivals, but although it was realized that there might be some slight error in the figures given, they were taken to be more or less correct. We understand these figures are obtained from manufacturers and dealers, and it rather appears as if some multiplication had taken place, or perhaps we should say they were computed on optimistic lines, giving the impression that the stock in America was considerably bigger than was actually the case.

In America these discrepancies are called 'variables.'

(To be concluded next week)

THE MYSORE PLANTERS' ASSOCIATION

(INCORPORATED)

Present

The Proceedings of an Extraordinary General Meeting held at the Kadur Club, Chikmagalur, on Thursday, August 13, 1925.

Mr. E. W. Fowle (*Chairman*), Major C. C. Couchman, Col. W. L. Crawford, D. S. O., Messrs. S. H. Dennis, M. D'Souza, C. H. Godfrey, Major A. L. Hill, O. B. E., M. C., Messrs. P. Hunt, R. C. Lake, W. H. F. Lincoln, R. O. Oliver, E. L. Poyser, and M. A. de Weck (*Secretary*).

The minutes of the previous meeting were taken as read and confirmed.

The Executive Committee's Report.—The Report—which was read and, after some discussion on one or two items which the Secretary explained, adopted—is reproduced below :—

Executive Committee Report

June 29, 1925 to July 31, 1925

Meetings.—A Quarterly General Meeting of the Association was held on June 29.

Accounts.—The Balance Sheets for 1923-24 and 1924-25 have been printed and copies sent to all members.

Defaulters.—Mr. K. T. Sheshaiya, B.A., L.L.B., Advocate, Belur, has agreed to take over and proceed with the case against Mr. Krishna Singh. The Secretary has written, therefore, to the Vakil to whom the

Association first entrusted the conduct of the case asking him to return all the papers in his possession with reference to the case.

The Secretary has written to the other defaulter asking him to remit his arrears of subscription, to date no reply has been received.

Monthly Notes.—July Notes have been sent to the *Planters' Chronicle*.

Coffee Cess.—As resolved at the last meeting the Member, Legislative Council, interviewed the Dewan. After this interview Col. Crawford received a letter from the Private Secretary to the Dewan. Copies of this letter were sent to the Members of the Executive Committee asking what action, if any, the receipt of this letter necessitated. It was decided that this matter should be put on the Agenda for this meeting.

Interest on Mysore Loan Bond.—The 7 per cent Mysore State Loan Bond of Rs. 1,000 has been converted into Inscribed Stock. The accrued interest, Rs. 105, for eighteen months, has been received from the National Bank of India, Madras, with whom the Certificate is in safe custody.

New Rule.—Copies of the new rule have been sent to all members.

Hassan Goods Shed.—A sum of Rs. 123-6-0, being income from goods passing through the shed from November 1923 to June 1925, has been received from the Agent in charge of the shed.

S. I. Planters' Benevolent Fund.—A letter from the Fund Secretary has been received to the effect that the application for a grant of Rs. 50 a month by a planter's widow, which the Executive Committee of this Association recommended, was put before the Committee of the Fund. The Committee, however, found itself unable to make the grant until the opinion of the Executive Committee of this Association on a certain point had been ascertained. The Secretary's letter and all correspondence on the matter were circulated to the Executive Committee of this Association and their opinion asked on the point raised by the Fund Committee.

Labour Department.—Copies of the Director's Report for the year ending March 31, 1925, have been sent to all members.

E. W. FOWKE, *Chairman*.

W. L. CRAWFORD, *Member, Legislative Council*.

C. H. GODFREY, *Member*.

PERCY HUNT, *Member*.

E. L. POYSER, *Member*.

Accounts.—The Balance Sheets for 1923-24 and 1924-25, having been re-audited and audited respectively and copies sent to all members, were presented for confirmation. They were confirmed subject to the following alterations in the 1923-24 Balance Sheet, the words 'Bedgate', 'Canjoil' and 'Sanderson Memorial Ward' to read 'Bedagali', 'Canjore' and 'Benevolent Fund' respectively.

Coffee Cess.—A letter from the Private Secretary to the Dewan to Col. Crawford, Member, Legislative Council, was read to the meeting. A lengthy discussion followed and it was decided that our delegates to the U. P. A. S. I. Annual General Meeting should support the payment of a Coffee Cess of As. 2 per acre for one year.

The Secretary was instructed to pay immediately the Coffee Cess for the year 1924-25.

Instructions to Delegates to the U.P.A.S.I. Annual General Meeting.—Major Hill explained that Mr. Newcome and himself had been under a misapprehension when they proposed, at the last meeting on June 29, 1925, a resolution regarding the membership of Departmental Representatives on the Executive Committee of the U.P.A.S.I., and that he wished, therefore, to propose a resolution cancelling the resolution then passed. Major Hill, seconded by Col. Crawford, then proposed, 'In view of the resolution passed at the Quarterly General Meeting of this Association on June 29, 1925, reading "That our delegates move at the forthcoming Annual General Meeting of the U.P.A.S.I. that, either by amendments or otherwise, membership of the Executive Committee by Departmental Representatives be put a stop to," having been passed under a misapprehension, this Association hereby cancels it, but requests its delegates to ask the Chairman of the U.P.A.S.I., in open meeting the exact purport of Article No. 21, para 4 of the U.P.A.S.I. Articles of Association.' *This was carried.*

Demurrage on Goods at Salem Station.—The Chairman said that he had received a letter from the Shevaroy Association in this matter. Mr. Poyser explained the position to the meeting and said that it was impossible for members of the Shevaroy Association to take delivery of goods without having to pay demurrage.

Mr. Dennis then said that the Bababudin members are allowed at the Birur Station ten days within which to take delivery of goods before demurrage is charged.

It was resolved that our delegates support the Shevaroy Association in this matter.

The instructions to our delegates, as passed at the previous Quarterly General Meeting, were confirmed and the Secretary was instructed to send copies of their instructions to the delegates.

Obstruction of Public Roads.—Several members spoke on this subject and the meeting was unanimously of the opinion that the proper authorities should be approached in order that the danger and nuisance caused by the parking of carts on the public roads should be put a stop to. Mr. Fowke proposed and Col. Crawford seconded, 'That the attention of the Deputy Commissioners of the Hassan and Kadur Districts be invited to the obstruction of the public roads by the parking of carts on the public roads and that they be requested to allot land for cart stands at suitable places and that the Police take suitable action to ensure carts making use of them.' *Carried.*

Chikmagalur Cemetery.—A letter from Mr. J. Watson, calling attention to the neglected state of the cemetery, was read to the meeting. The Secretary was instructed to write to the Chaplain, Mercara, drawing his attention to the matter.

St. George's Homes.—An appeal from the Principal for funds was read. A subscription list was passed round and Rs. 115 was promised. The Secretary was instructed to circulate the appeal to all members.

Date of Next Meeting.—This was fixed for September 29.

The Chairman proposed a vote of thanks to the President and members of the Kadur Club.

With a vote of thanks to the Chair the meeting ended.

M. A. DE WECK,
Secretary.

E. W. FOWKE,
Chairman.

NILGIRI-WYNAAD PLANTERS' ASSOCIATION (INCORPORATED)

**Minutes of a General Meeting of the above Association, held at Gudalur
at 11 a.m. on Monday, August 10, 1925.**

Present

R. Fowke, Esq. (*Chairman*), Messrs. J. C. Blackham, J. S. Nicolls, G. W. Fulcher, E. H. Hay, H. Bayzand, M. M. Wright, P. A. Naylor, J. Aird, J. C. Nicolls, W. K. Baillie, R. M. Nicolls and D. Mackintosh (*Honorary Secretary*).

Proceedings of the Last Meeting.—Were taken as read.

Audited Accounts.—For season 1924-25 were passed.

Roads and Communications.—*Deputation to H. E. Governor of Madras.*—Our deputation (Messrs. J. S. Nicolls, J. Aird and J. B. Adkins) attended on His Excellency at Ootacamund at noon on July 25, 1925.

They pointed out to His Excellency the difficulties and the loss which the members of this Association were undergoing on account of the Nadugani Ghaut Road being closed, not only by the extra cost of transport but also in the delay in getting produce to the coast.

They also approached His Excellency about the necessity of having, if at all possible, two outlet roads for the district.

His Excellency was very sympathetic and promised to do what he could.

The Deputation were heartily thanked by the meeting for what they had done on behalf of the Association.

The Honorary Secretary was instructed to convey to His Excellency the thanks of the meeting for receiving the Deputation.

This Association is of the opinion that the spreading of metal on the roads in this district should be completed about the end of September and the Honorary Secretary was asked to write to the President of the Nilgiris District Board expressing our hopes that this will if possible be given effect to.

Coimbatore Labour Control.—Read letter from Central Travancore Representative *re* Labour Rules in force in Kanan Devan, South Travancore and Central Travancore Planters' Associations.

The meeting were unanimously of the opinion that such rules could not possibly be worked satisfactorily in this district.

Instructions to Bangalore Delegates.—The Agenda of the U. P. A. S. I. was carefully gone through and discussed in detail and the delegates instructed.

U. P. A. S. I. Sports Club.—Mr. Bayzand brought up the question of the present method of scoring at Tennis in the U. P. A. S. I. Sports Club.

The Honorary Secretary was instructed to pay the Sports Club, the Association's annual subscription of Rs. 50.

Personal Members.—Mr. D. Mackintosh proposed and Mr. J. Aird seconded

Mr. Clan Fraser.

Mr. J. S. Nicolls proposed and Mr. P. A. Naylor seconded

Mr. J. B. Trafford.

The above gentlemen were unanimously elected Personal Members of the Association.

Scientific Department.—Mr. J. S. Nicolls informed the meeting that the land for the new Tea Experimental Station on Kalliard Estate, near Gudalur, had been purchased by the U. P. A. S. I. and that he had undertaken to supervise the erection of the buildings, etc., if some other members of the Association would assist him.

Messrs. J. Aird, G. W. Fulcher and D. Mackintosh very kindly promised to do so.

(Sd.) R. FOWKE,
Chairman.

(Sd.) D. MACKINTOSH,
Honorary Secretary.

LETTERS TO THE EDITOR

The Golf Competition in 'Planters' Week'

THE EDITOR,
THE 'PLANTERS' CHRONICLE',
MADRAS.

SIR,

'A delegated visitor's' account of the Golf Competition is inaccurate and misleading on one point. It rather implies that Mr. Godfrey's opponent in the semi-finals was unsporting and that a 'dispute' lost him the match. The truth of the matter is this. A ball in a bunker was unplayable in a brick drain made to let the water out. The ball was dropped in the bunker; did the player lose a stroke or not? There was no question of 'local rules' but of the Rules of Golf, No. 11, especially the end. If a stroke was not counted the opponent was 1 up, if it was counted it was all square. Instead of a 'dispute', the opponent agreed to play the match again and won at the 13th, after a great struggle. I feel sure Mr. Godfrey, who is one of the best of sportsmen, will agree to the truth of this. The interesting point involved is still unsettled. Planters as a rule do not 'dispute' over games, and may they never do so.

Yours, etc.,

September 9, 1925,

'ONE OF THE PLAYERS,'

EXPORTS OF TEA, COFFEE AND RUBBER FROM SOUTH INDIAN PORTS DURING JULY, 1925

From	To ports in India	Ceylon	United Kingdom	Europe (excluding United Kingdom)	Asia (excluding India and Ceylon)	Africa	America	Australia
<i>Tea—</i>								
Madras	876	...	725,932	5,000	250	...	...	...
Calicut	16,917	1,854	...	...	...	...	...	...
Cochin	10,000	45,765	1,916,746	...	30	1,300	...	...
Tuticorin	...	208,581	1,072,638	...	...	...	...	...
Alleppey	...	10,803	...	...	...	...	...	...
Total	27,793	267,003	3,715,316	5,000	280	1,300	...	...
Previously	114,154	1,101,050	9,601,851	1,050,299	3,159	620	18,960	...
Total lbs. since 1-4-25.	141,947	1,368,053	13,317,167	1,055,299	3,439	1,920	18,960	...
<i>Coffee—</i>								
Madras	424	...	451	...	...	...	...	159
Bombay	...	...	...	...	138	1	...	...
Total	424	...	451	...	138	1	...	159
Previously	14,617	34	109,798	82,864	27,857	...	503	7,232
Total cwt. since 1-1-25.	15,041	34	110,249	82,864	27,995	1	503	7,391
<i>Rubber—</i>								
Madras	...	...	24,365	...	...	...	...	...
Calicut	...	39,539	...	...	...	...	...	...
Cochin	...	210,984	359,357	23,200	...	...	84,660	...
Tuticorin	...	80,083	89,543	...	...	...	...	...
Alleppey	...	78,166	...	...	...	...	...	...
Total	...	408,772	473,265	23,200	...	...	84,660	...
Previously	1,684	2,722,429	2,427,353	78,653	753	12,244	876,981	...
Total lbs. since 1-1-25.	1,684	3,131,201	2,900,618	101,853	753	12,244	961,641	...

COMMERCIAL AND METEOROLOGICAL

I. The Rupee Exchange for the week ending September 12, 1925

Bank Selling Demand Draft on London

7th	8th	9th	10th	11th	12th
18 5/32d.	18 5/32d.	18 5/32d.	Holiday	18 5/32d.	18 5/32d.

II. Summary of latest Market Reports and Prices to hand :—

(a) Some of the higher London Prices—

Highest prices realized on the London Market			Average prices obtained for tea			
Mark	Pkgs.	Price	District	Week ending August 22, 1925	January 1 to August 22, 1925	January 1 to August 22, 1924
(1) TEA (WEEK ENDING AUGUST 22)		s. d.		s. d.	s. d.	s. d.
(a) <i>Annamallais</i> —			N. India.	1 2'30	1 5'08	1 5'68
Mokuttimudi ...	133	1 4½	S. India.	**1 3'52	††1 6'04	††1 6'13
Thaymudi ...	85	1 4½	Ceylon...	1 5'87	1 7'64	1 7'72
(b) <i>Kanan Devans</i> —			Java ...	0 11 81	1 0'80	1 2'58
Chundavurrai ...	111	1 9	Sumatra.	1 3'52	1 4'22	1 4'75
Chokanad ...	85	1 7½	Nyassa-land.	0 10'26	1 1'11	1 4'18
Kanniamallay ...	49	1 6½				
(c) <i>Nilgiris</i> —						
Ibex Lodge ...	53	1 7				
Glendale ...	125	1 4½				
(d) <i>Central Travancore</i>						
Glenmary ...	52	1 3				
Stagbrook ...	70	1 2				
			Total	*1 3'58	†1 5'57	†1 6'05

** Based on 3,538 packages.

†† " " 115,365 "

‡‡ " " 93,504 "

* Based on 70,354 packages.

† " " 1,881,059 "

‡ " " 1,802,477 "

(b) *Précis of reports on London Markets received on September 14 and covering the week ending August 22—*

(1) *Tea.*—South Indian and Dutch East Indies Teas alone show an increase in this week's average price as compared with last. The best liquoring descriptions and tippy teas were in strong demand at firm, and even in some cases advanced, prices; but common and low medium sorts showed a fall of about 1d. per pound as compared with last week's rates. Even better mediums fell by about ½d. per pound. The offerings of South Indians were in quality inferior on the whole, and in quantity little more than half the amount tendered for sale last week.

(2) *Rubber.*—Rapid fluctuations in price were still in evidence; but the market on the whole showed a firmer undertone, and there was keen enquiry for deliveries over the whole of 1926 at prices about 2/2d. C.I.F. London or New York. Business transacted however was not commensurate with the volume of enquiry for sellers would only offer limited quantities at the price specified above.

(3) *Coffee.*—The Spot market maintained a steady tone with moderate sales passing at previous prices, or at a slight advance in the case of Brazilians, which remained remarkably firm. South Indian Coffee was not prominent, and 286 bags of Mysore (Spring arrivals) were mostly bought in as sellers would not accept the figures bid and buyers would not advance their price.

III. Weekly Rainfall Statement

From April 1, 1925, up to and including Saturday, September 12, 1925

Stations are arranged in order approximately south to north and those not in planting districts are shown in small capitals.

Stations	W.	P.	Total	Stations	W.	P.	Total
1. Kalthuritty.	0·05	59·93	59·98	17. Coonoor ...	0·41	13·57	13·98
2. Tenmalai ...	Nil	62·63	62·63	18. Kotagiri ...	N.R.	19·32	N.R.
3. Mundakayam.	0·09	117·17	117·26	19. Ootacamund	Nil	26·32	26·32
4. Peermade...	0·28	133·74	134·02	20. Yercaud ...	1·04	26·37	27·41
5. V'periyar ...	N.R.	55·46	N.R.	21. Devala ...	N.R.	108·10	N.R.
6. Kalaar ...	0·67	178·21	178·88	22. Gudalur ...	0·63	60·59	61·22
7. Chittuvurrai	0·08	20·82	20·90	23. CALICUT ...	0·06	108·23	108·29
8. BODI'KANUR	Nil.	N.R.	N.R.	24. Kuttiyadi ...	0·10	145·05	145·15
9. COCHIN ...	0·20	77·84	78·04	25. Vayittiri ...	0·49	135·83	136·32
10. Mooply ...	0·02	82·43	82·45	26. Manantodl...	0·30	97·82	98·12
11. Pachaimalai	0·45	93·01	93·46	27. Billigiris ...	1·21	40·24	41·45
12. Mudis ...	1·69	152·55	154·24	28. Sidapur ...	Nil	53·36	53·36
13. POLLACHIE.	Nil	16·14	16·14	29. Somwarpett	0·03	65·07	65·10
14. Manjeri ...	Nil	93·94	93·94	30. Ballupete ...	0·04	60·43	60·47
15. Nilambur ...	N.R.	80·43	N.R.	31. MANGALORE.	0·16	124·40	124·56
16. Naduvattam	0·99	66·35	67·34	32. MADRAS ...	1·29	14·12	15·41

W = During the week.

P = Previously.

N.R. = No return.

The Planters' Chronicle

Recognized as the Official Organ of the U. P. A. S. I. (Incorporated)

Managing Editor's Postal Address : POST BOX 155, MADRAS

Do. do. Registered Telegraphic Address : UPASI, Madras

VOL. XX, NO. 39] SAT., SEPTEMBER 26, 1925 [PRICE, AS. 8.

CONTENTS

	PAGE		PAGE
Editorial Notes ...	711	Hevea Experiments in Florida	721
The Outlook for Tea ...	713	U. P. A. S. I. Sports Club ...	723
Rubber Market Review ...	714	Export of Indigenous Manures.	724
Uganda Coffee, Rubber and		Commercial and Meteorolo-	
Tea ...	719	gical ...	725

EDITORIAL NOTES

Up to the time of going to press the Secretary of the U.P.A.S.I. has received no applications in response to the request made on page 680 of our issue of September 12 that any planter who would like to attend the Tocklai Experimental Station Cold Weather Course of Lectures arranged for the last week in November should advise him without delay. As already stated the U.P.A.S.I. was allotted two seats for this course, but requested to inform immediately the Indian Tea Association, Calcutta, if the seats will not be required. In the circumstances the Secretary of the U.P.A.S.I. wishes us to announce that, failing an immediate response from would-be delegates to this Reminder Notice, he will assume that no members of the U. P. A. S. I. are in a position to attend the course this year.

Sir C. E. Low writes as follows to *The Times* :— 'The backwardness of agriculture in India was brought out in the report of the Indian Industrial Commission. This report showed that in India one person is required for the cultivation of 2.6 acres, while in England one worker can deal with 17.3 acres. So far as the yield is comparable, the outturn in England is from two to two-and-a-half times as great, and the Indian average is made up of outturns which vary from area to area far more than in England. The best in India is little, if at all, behind the English average; the worst

*The Tocklai
1925 Lecture
Course*

*Potentialities
of Indian
Agricultural
Research*

compares closely with English yields in the 14th century, and can be improved as they have been.'

The appointment of the Royal Commission on Indian Currency and Finance which we adverted to in an article on page 635 of our issue of August 29, is of course of considerable interest to the Planting Community who will note with gratification that the subjoined terms of reference are extremely wide:—'To examine and report on the Indian exchange and currency system and practice, to consider whether any modifications are desirable in the interests of India, and to make recommendations.'

The personnel also would appear to embrace a very wide range of experience which should be able to tackle adequately the vital issues which it will be called upon to face. These, it is understood, comprise not only the fixation of the rupee rate but also the investiture of the Imperial Bank of India with the functions, e.g., currency management, remissions of sterling from India, etc., ordinarily appertaining to Central National Banks. The Chairman of the Commission is Lieutenant-Commander Hilton Young, M. P., whose wide financial experience has already embraced India in connection with the 'Meston' awards. Of the other members, Sir Henry Strakosch was, it is significant to note, a signatory with Sir Basil Blackett to the Currency Report which was made by the Commission of experts appointed by the International Economic Conference of Genova at the beginning of 1922 and which laid down definite principles which should guide the special duties of Central Banks. Sir Alexander Murray of Messrs. Jardine Skinner and Co., Sir Rajendranath Mukerjee of Messrs. Martin and Co., Sir Maneckji D. Dadabhoy and Sir Purshottamdas Thakurdas represent large financial interests; and the inclusion of the last mentioned is a guarantee that the point of view of the advocates of a low rate of exchange will be constantly to the fore. The Banks are represented by Sir Norcot Warren and Mr. W. E. Preston, the Chief Manager of the Chartered Bank of India, Australia and China; the theory of Economics could have few abler exponents than Professor J. C. Coyajee; and the Government official representative is Sir Reginald Mant.

The commercial possibilities of synthetic rubber are invariably upheld by one or more Companies, which have hitherto proved to be of the mushroom order, whenever the price of botanical rubber reaches a high point. In this connection we have heard of Maize, we have heard of Artichokes, we have even heard of Fish as the source from which the necessary isoprene was to be obtained. We now learn from the Erste Deutsche Rohgummiwerke Wick and Kons, of Hanover that the humble potatoe is the raw material which their predecessors in this 'alchemy-up-to-date' line sought; but sought in vain. The prospectus of this firm states that as a result of twelve years' research it is now in a position to convert the potatoe into a product 'equal to a medium grade natural rubber, but with greater elasticity and slightly weaker nerve'. The promoters, at any rate, are themselves strong with respect to the commodity in which their product is said to be weak; for, while there is no reason to doubt that the potatoe is one of the many sources from which isoprene can be obtained, past experience would seem to indicate the remoteness of any probability that it can be obtained at a commercially profitable price.

THE OUTLOOK FOR TEA

Advices from the London Market indicate that the recent falling off in tea prices is not universally regarded there with the optimistic equanimity of those who share our special correspondent 'Eothen's' view that the market may merely be 'Reculant pour mieux sauter,' or in other words that prices in a not too distant future may more than compensate for the prices of to-day.

The fundamental causes of the concern regarding the future of the Market are presumably firstly the large increase in the United Kingdom stocks of Tea, which as we reported in our editorial columns last week, were no less than 163½ million pounds at the end of July as against 119 million pounds and 113 million pounds respectively at the end of July 1924 and 1923; and secondly the fact that the Northern Indian crop figure to-date show an increase of 22 million pounds on the figure for the corresponding period of last year. Prophets are not wanting who say that the tea stocks will be a hundred million pounds in excess of the normal before the present season is over, and that it will soon be impossible to ship at a profit any but the most superior grades of tea. A writer in that usually well-informed journal *The Financial Times* inveighs against the leading Directors for sanctioning course plucking, and the Indian Tea Cess Committee for spending in propaganda work in America money which he says might with equal advantage be thrown down a sink. We find ourselves unable to subscribe to at any rate the latter portion of his two-fold criticisms, as we cannot consider it illogical to attribute to the Committee's propaganda a large proportion of the increased consumption of Black Tea in the United States; and the editorial note on page 635 of our issue of August 29, which described the alarm felt by the Japanese at the activities of the Indian Tea Cess Committee, clearly shows that the competitors of British Indian producers share our view.

But though the situation is in our estimation infinitely better than it would have been without the Indian Tea Cess Committee's propaganda work, it is in actuality quite sufficiently bad. On taking over the Editorship of this Paper three months ago we were able to record a South Indian average price approaching 1/8d.: to-day we quote a price which is under 1/2d., and indeed 1½d. less than that which we recorded on page 709 last week. As the comment on our Commercial page shows the price of the lower grade South Indians is being forced down; and the primary cause of this situation is probably under selling by Javas which are available in the market at under 1s. per pound. We do not mean of course to imply that the lower grade South Indians are inferior, or even only equal to, Javas; but many buyers out for the lowest priced tea obtainable and more or less indifferent to quality are now in a position to ignore South Indias on account of the Java supply.

The Indian Tea Association is doubtless taking cognizance of the present situation which might, if production is maintained at the present rate, develop into a slump analogous to that brought about by the abnormal conditions which obtained after the Great War; and we may be confident that that body will be prepared to meet adequately any untoward combination of circumstances which may arise. On the other hand it may be that external action will not be necessary; for, if the 1925-26 crop comes down before the end of the season to the level of the previous year, a reasonably good all-over over price for the current season may still accrue in the ordinary course of events.

MESSRS. CHARLES HOPE & SONS' RUBBER MARKET REVIEW

Whatever the explanation may be there is now little doubt that American manufacturers suddenly found themselves faced with a distinct shortage of near rubber, and that in consequence they had to come to London to fulfil their immediate requirements. London stocks had already been reduced from the very high level at which they stood a little more than a year ago, and the sudden extra demand has left this country, for all practical purposes, with no stock at all, and with every likelihood of a good many months having to pass before any material replenishments can take place. If this is due to variables, we can only surmise that American manufacturers and dealers have been 'hoist with their own petard.'

America is not the only country that has retained more rubber than was expected during the first few months of this year. All the European countries, Germany in particular, have retained rather more than was expected; and also we know that in those centres where stocks were held these stocks have been considerably decreased.

The figures we give below (based on Rickinson's) show the quantity of rubber retained by each country so far this year, and the total amount they would retain for the twelve months should they continue at the same rate of retention :—

	Months.		For the year.
U.S.A.	... 6	186,628 tons	... 373,200 tons
U. K. estimated			... 30,000 "
France	... 5	15,894 "	... 38,100 "
Germany	... 5	18,517 "	... 44,400 "
Italy	... 4	3,740 "	... 11,200 "
Canada	... 3	5,058 "	... 20,200 "
Netherlands	... 5	492 "	... 1,200 "
Japan	... 6	6,545 "	... 13,100 "
Rest	... 6	11,120 "	... 22,200 "
			553,600 tons

We do not think that any estimates, even those made after the first month or so of this year, allowed for an increase in consumption to this extent, most of the estimates varying from under 500,000 to 530,000 tons. As we have made no allowance for reduction in stocks it is quite likely that more rubber has been consumed in the various countries mentioned above than has been retained. We know that stocks have been reduced, and had they not been reduced to a very low level prices would hardly have risen to the extent they have.

On the other hand, it must be borne in mind that consumption for the first few months of the year is no criterion of the consumption for the whole twelve months. As an example, the amount of rubber retained by the U.S.A. during the first six months of 1923 amounted to 190,321 tons, which is 3,693 tons more than they had retained during the first six months of this year. Had, therefore, we worked out the probable consumption of the U.S.A. for 1923 on the same basis as above we should have arrived at a figure of 380,000 tons, whilst actually the rubber they retained during the whole of that year was only 300,000 tons.

It will therefore be seen that the total of 553,600 tons as arrived at above may be misleading. The position, of course, is much complicated by not having any reliable figures of the American stock. It is, however, fairly safe to assume that their stock has been almost as much reduced as the stock in London, as a big stock is not conducive to high prices such as have been experienced in New York during the last month.

Ignoring possible alterations in the stock figures, the amount of rubber retained in the U.S.A. during the first six months of this year as shown above was 186,628 tons. At the same ratio, this is equivalent to 373,256 tons for twelve months. The amount of rubber they retained in 1924 was 318,250 tons. Therefore the percentage of increase from 1924 to 1925 in rubber retained would be 17 per cent.

We know that since January 1, 1924, world stocks have been decreased, if therefore we compare the world total of 553,600 tons which would be retained at the present rate of consumption during 1925 with the total of 419,000 tons retained in 1924, the percentage of increase is 32 per cent, which is a satisfactory if not an alarming figure.

The figures we have given may be entirely based on a false proposition for the reasons we have shown. If, however, it is carefully borne in mind that they may be misleading, they are not without interest, as they show what conceivably might happen. We will, therefore, carry the proposition even further, and consider what might be the position in 1926. As we freely acknowledge that these figures may be fallacious, we need make no apology for interposing a considerable number of 'ifs.'

If, therefore, consumption during 1925 should amount to this possible total of 553,600 tons, it would be an increase of nearly 18 per cent over the estimated actual consumption during 1924, which was about 470,000 tons, and again, if this possible consumption of 553,600 tons in 1925 was increased by 20 per cent in 1926, which is not an entirely unreasonable supposition, we should then have a world consumption in 1926 of 664,000 tons. As we do not believe the world could produce so much rubber in 1926 without a disregard of bark renewal, we presume the supposition must be highly improbable. There are, however, some people who believe anything may be bought provided the price paid is high enough, and if such a demand did come might try to obtain the commodity at any price.

Should consumption continue at the present rate for the remainder of this year, it will be equivalent to about 46,000 tons per month. But even then there should be enough rubber coming forward during November and the following months to supply requirements, and leave a small balance for the replenishment of stocks. This estimated excess of shipments over consumption would, however, be so small that it would be almost negligible.

It is, we believe, from the more extended use of cars for private motoring for pleasure that the biggest increase in consumption has taken and will take place. During the war the use of pleasure cars was greatly curtailed, and, as Europe is only now getting back to more or less pre-war

conditions the production of cars may show a very big increase during the next year or so. The reason why there are so many more cars in America per head may be that America is a very prosperous country, and instead of being retarded by the European War, it on the contrary benefited considerably, from a pecuniary point of view.

A good deal of the increased consumption may be attributed to the successful introduction of the balloon tyres, which week by week are more frequently met with on the road, particularly on smaller cars. As the life of a balloon tyre is said to be less than that of the cord tyre, a corresponding increase in the consumption should take place; in the same way that a decrease took place when cord tyres supplanted the old fabric tyres. Although balloon tyres may not last so long as cord tyres, they have other advantages which more than outweigh this slight disadvantage. There seems little doubt that it was very largely due to the introduction of the cord tyres that the price of rubber remained so low during the last few years. We would say that the life of the old fabric tyre was about 6,000 miles, cord tyres about 14,000 miles, and the balloon tyres 10,000 miles. If these mileages are about correct a satisfactory increase in consumption might be expected on that account.

Owing to the relatively small demand there has been since 1918 coupled with a low average price the existing estates in the planting districts have done very little fresh planting, nor has the price given any inducement for the formation of new companies to acquire jungle land, and commence planting new estates. Since 1920 the total acreage of land that has been opened up is surprisingly small. The amount of rubber that may be expected from trees that will come into bearing during the next five years is of an almost negligible quantity. There would, nevertheless, be a certain amount of increased production from the older areas, particularly from those that have benefited by having been rested owing to the enforcement of the restriction scheme, but the increase that can be expected from the older areas is distinctly limited.

When it is considered that the present price is even now below the pre-war average, whilst most other articles are well above the pre-war average; and that the average price for the last few years has been little more than the bare cost of production, and at times below, the present price does not appear unreasonable. It is only fair that the industry should receive some compensation for the lean years that have passed when the raw commodity was selling at a price which showed a loss to the producer, but which must have been advantageous to the manufacturer and consumer.

To our mind, considerably too much stress is put on the price of spot rubber, and consumers are much too ready to dogmatize about the present price being too high, without taking into any consideration whatever what the average price has been over a period of years.

When we look a little further ahead than the near future we can see that the rise in price which has taken place, if it is maintained for any length of time, will eventually benefit the consumer. It is only high prices

and a fair prospect of these high prices being maintained that will induce producers to enlarge their plantations, and encourage capitalists to invest fresh money for the opening up of new areas. Incidentally, the capitalists who find most of the money for rubber planting are the small investors who purchase a few hundred 2s. shares, and none of these capitalists will part with his money unless he thinks there is every possibility of obtaining in the years to come a fair return on the money invested. We do not think that if rubber during the next five years, was going to average the same price as it has during the past five years there would be any inducement for any capitalist, whether large or small, to invest money in planting a commodity which shows such a very poor return on the necessary capital outlay, and then only after a wait of six or seven years.

If the present demand is continued there seems to be no hope of the exhausted stocks being replenished for some time to come. In fact, it seems probable that the world will have to continue working on short stocks for a long period. Unless stocks are considerably augmented there is no knowing what the position may be, say in 1928.

The European demand has improved, and now that we are enjoying more settled conditions and stabilized exchanges the Continental inquiry is likely to increase still further. The Continental demand is mostly for spot rubber. Unless there is a falling off in inquiry the present scarcity of spot rubber will not be relieved, unless a much bigger increase in shipments from the East takes place than is expected, or unless there is a big decrease in consumption.

On the other hand a price of over 3s. for rubber on the spot appears high after the very low prices that have been experienced during the last few years, and may act as a brake on the demand, which in consequence may show a falling off. Also should the present high prices continue, shipments may be rather bigger than we have estimated, but there is not much scope for any big increase in shipments during the next few months, and as long as any of the output is restricted any increase on our estimate would have to come from the unrestricted area, more particularly from native-grown rubber or from Brazil or wild rubber.

The increase in the shipments of native-grown rubber continues to be fully maintained, and in fact still shows signs of increasing.

It is very difficult to reconcile a minor slump in the middle of 1924 with a lengthy boom less than a year later. There is, therefore, some natural inclination to talk of a further reaction from present prices. There must obviously be some reaction from the highest price reached, as prices cannot reach a certain level and stay there indefinitely, and this has already taken place, but to speak of an 'inevitable reaction' rather conveys the impression that prices will once again return to about their old level, and with the commodity at the present price there will still have to be a considerable fall before the old level is reached. So although we are still of the opinion that by the end of this year production will be slightly in

excess of consumption, the stocks may be so low that there may be plenty of buyers willing to buy rubber and take it into stock, although they may have no immediate need for it.

Owing to the increased European consumption many shipments of rubber that would in the ordinary way have gone to the U. S. A. have been diverted to European ports.

To our mind the position to-day is about as dangerous as it possibly could be. If consumption increases at its present rate there is likely to be a severe shortage for some years to come. If, on the other hand, there is a falling off in consumption next year, production will be very largely in excess of consumption, and this will result in a slump which, starting from the present level would be, to say the least, very disappointing to producers. It is well-known, and has been demonstrated during the last week or so that when such a slump commences the fall is likely to be considerably more rapid than the rise, as not only will weak holders throw out the rubber they have, but manufacturers seeing that the price is falling will keep off the market, and thus accentuate the depression. It must at the same time be borne in mind that the present London stock could be increased nine-fold, and even then not be at an unduly high level.

Under the restriction scheme the pivotal price of rubber was about 1s. 3d. We do not think that it would be to the best interest of the industry that the price for any long period should average over 4s. per lb. For even the present price of 3s. 5½d. is bound to check consumption, and also to stimulate the production of reclaimed rubber. There is already a considerable increase in activity in the American reclaiming factories.

It is now fairly obvious that the future trend of prices will depend more than ever on the consumption of the commodity, as production can be fairly accurately estimated. Owing to the increased demand and high price there is every likelihood of the output from the restricted area being increased next year to the full amount, providing the necessary expert labour can be found, and given time we feel confident it will. Consumption depends on the economical conditions of the consuming countries. Should America and the Continent of Europe have prosperous years, more and more rubber will be used, and consequently rubber producers may for some years to come, in their turn, experience increased prosperity.

We look to the more distant future with the greatest optimism, tinged with the fear that consumption might be curtailed by a price for the commodity which is so high that the buying power of the ultimate consumer is curtailed.

In any case the future of the industry seems more assured than it has for some time past.

UGANDAN COFFEE

RUBBER

AND

TEA

We extract the following from the report of the Director of Agriculture, Uganda, for 1924 :—

COFFEE

(a) European Plantations

Coffee continued the principal crop on European Plantations and, although crops were generally light, prices on the home markets were good. Exports amounted to 41,093 cwts., valued at £167,696, compared with 40,932 cwts., valued at £108,496 the previous year. *Coffea arabica* is the variety chiefly cultivated, but more attention was given by planters to improved types of *Coffea robusta* which is increasing in popularity. Greatly increased interest in coffee cultivation was shown by natives during the year and good types of robusta coffee plants were issued in large numbers in Buganda, and many central nurseries, especially in Masaka District, were opened. An extension of the acreage under *Coffea arabica* amongst the natives in Bugishu has also to be recorded. A start was made in replanting the re-opened Sese Islands with coffee.

The Coffee Officer, who arrived in Uganda in August, 1923, visited during the year all the chief coffee areas of the Protectorate. The following is a summary of his views on coffee cultivation in this country :—

He considers that the highlands of Elgon, Ruwenzori and Toro provide practically ideal conditions for the growth of *Coffea arabica*. In other lower and more humid parts of the Protectorate the conditions are less favourable, and the selection of a rich fertile soil is a *sine qua non* for successful *arabica* cultivation on plantations. The Coffee Officer points out that good coffee estates are found in nearly all coffee areas as well as in the zones named above, but that in every case such plantations are on very good and carefully selected soil. For instance of one area he says : ' Of a number of Estates (12) I visited, only three can be taken as being really good and are on typical coffee soil ' ; and of another area : ' Of the seven estates visited only two are on good coffee soil ' ; and again : ' The number of estates visited was thirteen . . . the real cause of the deterioration of Arabica coffee in this area and most important of all, is poor soil. On two estates on good soil some of the best coffee trees to be seen in the country are found.'

Mr. Ross expresses the opinion that generally estates are too large for economical working under prevailing conditions, and that smaller areas, very closely looked after, would be found more profitable. He emphasizes his advocacy of the multiple-stem system as opposed to the single-stem system of growing coffee, and records the number of favourable reports received from those who have adopted the multiple-stem system.

Referring to the cultivation of Robusta coffee, he recommends its substitution in place of *arabica* on estates with poor soil, on account of 'its larger range of adaption and ability to grow well and produce good crops in soils in which *arabica* cannot prosper.'

On the question of the best shade tree, he is of the opinion that the indigenous bark-cloth is 'the tree that will give the planter the ideal shade for coffee.'

(b) *Native Holdings*

During the year the Coffee Officer has also given attention to the native coffee industry. New nurseries were laid out in the Mubende and Bunyoro Districts, and plots were planted out in Toro from the nurseries laid out in 1923. Additional *C. robusta* nurseries have also been opened in Masaka District and on the Sese Islands and large supplies of plants raised for distribution from the Kampala Plantation. The demand by native growers for coffee seedlings has been very keen—especially in Masaka and nearly 50,000 plants were issued in that District.

The Coffee Officer visited the Bugishu coffee area on the lower parts of Mount Elgon in December and remarks :—'The conditions for growing *arabica* coffee I found to be ideal. Many of the natives had good sized plots of coffee, which generally were in excellent condition.'

The Agricultural Officer of this district reports that 90,000 coffee plants were issued during the year from the central nurseries at Bubulu and Buyobo and that the number of coffee plots now planted up amounts to 2,283. Two more coffee pulpers were set up by chiefs during the year in addition to the two at the pulping depôts organized by the Department in 1923. Prices obtained by the natives for their coffee were higher than the previous year and ranged from 40 to 60 cents per lb. A large increase of acreage is expected in 1925.

RUBBER—(*Hevea Braziliensis*)

Rubber is again coming to the fore, and the higher prices on the home market enabled tapping to be carried on steadily during the year. Exports amounted to 608,300 lbs., valued at £18,911, compared with 398,600 lbs., valued at £9,926 in 1923. It is estimated that some 10,000 acres are under this crop on plantations.

It is satisfactory to note that in the Mycologist's report he remarks that 'Para rubber in Uganda remains remarkably free of fungus disease.'

TEA

Interest in this crop is on the increase. The acreage under tea is still small, but fair quantities of the product are turned out and find a ready sale for local consumption. One European estate in Mubende District now devotes its attention almost entirely to tea cultivation. The Department has had tea plots established in the Kampala, Kakumiro and Toro plantations for many years. Seed of new varieties has been received from India for further experimental work.

HEVEA PLANTING EXPERIMENTS IN FLORIDA

FIRESTONE, FORD AND EDISON CO-OPERATING

Says 'The Malayan Tin and Rubber Journal.'

Recent developments in Florida now give promise that in years to come the 'Peninsula State' may become as well known for its rubber as for its oranges, indeed may even be called the 'Rubber State.' That American grown crude rubber in quantity, and other than the guayule of the Southwest, may soon become an actuality seems almost like an impossible dream, yet with such wizards in their respective lines as Firestone, Ford and Edison backing the project, the seemingly impossible may be confidently expected to happen. Meanwhile the story of progress to date is an interesting one.

FIRESTONE LEADERSHIP TOWARD AMERICAN GROWN RUBBER

In 1922 when the Stevenson act restricting the production and exportation of rubber produced within the British Empire was about to become effective as a means of controlling prices, Harvey S. Firestone, the Akron tyre manufacturer, took the lead in the agitation of American rubber interests against the plan. When it became certain that nothing could prevent its adoption, he began circulating the slogan, 'Americans should produce their own rubber,' and pointed out the anomalous position of the United States, which consumes 75 per cent of the world's total production of crude rubber yet produces only 2 per cent, and none of that under the United States flag. He emphasized the fact that 80 per cent. of the world's rubber supply is under British control and 18 per cent under Dutch control, so that although the United States is the biggest consumer, the great American rubber industry is entirely at the mercy of England, the biggest producer. This, he stated, was a bad enough situation under restriction in times of peace, and in war time might become a series menace to the American rubber industry.

Mr. Firestone declared that the British restriction and Dutch tariff upon rubber production and exportation would have serious effects upon American rubber goods manufacture, especially the tyre branch of the industry, which consumes 80 per cent of all the rubber brought into this country. And to-day with British plantations producing only half the normal crop, the price of the raw material is over 200 per cent higher than at the time the Stevenson act became effective in 1923. That tyres and other rubber products are not now proportionately more costly can be traced to the drastic measures to lower manufacturing costs in American factories. But as the supply is diminishing at the same time that the demand for rubber products, especially tyres, is increasing, there is grave likelihood of a shortage and much higher prices in a few years. Rubber restriction this year will cost American car owners from \$100,000,000 to \$300,000,000, Mr. Firestone estimates. Every 10 cent advance in the cost of crude rubber means an additional burden of about \$75,000,000 loaded upon the American people.

FIRESTONE RUBBER INVESTIGATING EXPEDITIONS

To ascertain at first hand about the rubber growing possibilities of our own tropical possessions and other friendly countries, Mr. Firestone fitted out at his own expense investigating expeditions to many parts of the world, including the Philippines, Hawaii, Central America, Mexico and

the West Coast of Africa. Extensive surveys in Liberia give encouragement that this little republic may yet supply a liberal quantity of crude rubber to America. A complete Firestone organization is already on the ground preparing to plant rubber on an extensive scale.

UNITED STATES GOVERNMENT RESEARCH AND EXPERIMENT

As part of his campaign against domination of America's crude rubber supply Mr. Firestone pleaded with the United States Government to aid in giving American manufacturers a source of supply under their own control and at least to a certain extent in American territory. Congress subsequently apportioned \$400,000 to the Department of Commerce for investigation of new sources of rubber supply and \$100,000 to the Department of Agriculture for experimental purposes in localities possibly suitable for growing rubber trees. A preliminary report of the results of the government surveys and experiments is expected to be issued some time this spring.

It was realized at the outset that within the borders of the United States rubber, apart from shrubs similar to guayule, could be grown only under sub-tropical conditions, which exist only in Florida and southern California. The latter was hardly to be considered as practical commercially for several reasons. Owing to the mountainous character of much of the state few areas suitable for plantation purposes are available. Moreover, rainfall and humidity are insufficient and not well distributed through the year, there being a pronounced rainy and dry season.

Southern Florida, on the other hand, is low and relatively flat, with no mountains. It is warm throughout the year and has a more evenly distributed rainfall. While the precipitation does not approach that of the Amazon valley or the rubber growing regions of the East, it is apparently ample to support numerous rubber yielding trees which are indigenous. In the Everglades region great low-lying areas adjoining the swamps possess constant sub soil moisture which may prove the redeeming feature to offset lack of rainfall and make rubber growing possible under conditions approaching those in parts of Brazil.

GOVERNMENT EXPERIMENTAL STATION AT CHAPMAN FIELD

Taking these facts into consideration, the Federal government gave the Department of Agriculture a strip of land near Coconut Grove, formerly the air-plane landing station known as Chapman Field, for experimental purposes. Owing to its former use, this land is not in an encouraging state of fertility, yet under the able direction of Alfred Keyes thousands of rubber yielding plants and trees of many different varieties are being grown and have shown surprising growth and health. Experiments with Hevea, the best rubber yielding tree known, have thus far been very encouraging.

EDISON AND FORD EXPERIMENTS IN FLORIDA

Thomas A. Edison, the electrical wizard, has long been a winter resident of Fort Meyers, and on his estate some very promising rubber trees are growing. His interest in his problem is very keen and the experiments he is conducting in mechanical latex extraction may one day revolutionize common practice for the benefit of the American rubber industry.

Encouraged by the Edison and government experiments, and the fact that trees and plants yielding commercially usable rubber are growing practically all over Southern Florida to-day, Henry Ford, the automobile manufacturer, recently bought 8,700 acres of land at Labelle, about 30 miles from Fort Meyers on the West Coast, and his experts have planted dozens of varieties of rubber trees. The growth and productivity of these plants are being carefully watched and experiments made to determine the best way of making them yield crude rubber on a paying basis.

FIRESTONE INVESTIGATION OF FLORIDA POSSIBILITIES

Great impetus to American consideration of Florida as a rubber producing state has recently been given by a tour of investigation lately several weeks conducted by Harvey S. Firestone. Accompanied by Mr. Edison, one of Mr. Ford's tree experts and M. A. Cheek, who has been identified with the Firestone interest in the East for fifteen years and understands rubber production thoroughly, he visited the Edison and Ford estates and the government experimental station. Several sections of the state were visited, including the Everglades, soil was examined, rainfall data secured, climatic conditions studied and the growth of native rubber trees and various other features concerning commercial rubber production observed.

(To be concluded next week)

U.P.A.S.I. SPORTS CLUB

Madras Rugby Football Tournament

The following have been selected to represent the Planters in the above tournament commencing on October 5:—

BACK	...	E. A. Stone	...	Annamallais.
THREES	...	E. G. F. Maule	...	Do.
		R. S. Mackay	...	High Range.
		A. Peachy	...	Wynaad.
		W. P. Laird	...	High Range.
HALVES	...	P. W. Davis (Capt.)	...	Nil.-Wynaad.
		Stockwell	...	Annamallais.
FORWARDS	...	K. C. Pryor	...	Wynaad.
		E. R. Walker	...	Nil.-Wynaad.
		J. C. Nicolls	...	Do.
		Walker	...	Annamallais.
		G. W. Wallace	...	Do.
		C. W. Mayow	...	Do.
		R. C. Bulteel	...	Do.
		D. MacIntyre	...	High Range.
RESERVES	...	E. C. Sheward	...	Wynaad.

WOODBRIAR ESTATE,
DEVERASHOLA P. O.,
September 23, 1925.

G. W. FULCHER,
Honorary Secretary,
U.P.A.S.I. Sports Club.

BANGALORE—CENTRAL HOTEL, 'The Best in the Station.'

EXPORT OF INDIGENOUS MANURES FROM INDIA SINCE 1919 IN TONS

HEADINGS		1919-1920	1920-1921	1921-1922	1922-1923	1923-1924	1924-1925	1925-1926 Four months
Saltpetre	...	...	19,484	11,747	10,596	7,811	8,162	350
Horns and Hornmeal	...	...	2,056	3,178	4,598	4,377	3,080	1,556
<i>Manures—</i>								
Bones	...	...	83,693	89,005	84,571	95,685	70,987	24,961
Fish Manures	...	...	7,127	6,033	10,162	11,567	18,246	1,425
Fish Guano	...	...	5,010	3,424	8,674	16,584	{	{
Sulphate of Ammonia	...	...	6,780	2,987	2,069	5,064	10,253	598
Other Kinds	...	...	5,849	3,661	4,584	1,819	2,301	863
<i>Oil Cakes—</i>								
Castor	...	...	1,639	864	952	1,107	1,410	319
Cocanut	...	...	3,771	3,346	942	1,540	1,317	1,077
Cotton	...	...	8,156	1,932	3,429	2,174	4,190	1,210
Ground-nut	...	...	79,697	55,643	64,370	65,386	95,049	20,817
Linseed	...	...	12,450	11,120	11,312	15,508	16,404	5,336
Rape and Sesamum	...	...	33,341	38,786	62,018	85,727	68,308	22,764
Other Kinds	...	...	1,630	1,237	8,096	6,602	8,085	2,074
Total Tons		297,241	231,952	232,963	276,373	320,961	307,792	83,350

NOTE.—The above figures have been taken out from Export Returns of the Country in order to comply with a resolution passed at the last Annual General Meeting. The value of the above exports in 1924-1925 was Rs. 3,84,25, 636 or at present rate of exchange over £2,900,000. In previous statements published in the *Chronicle* as to export of indigenous manures, oil seeds such as castor, copra and cocanut kernels, cotton, groundnuts, linseed, etc., which are potential sources of fertilizers in way of poonacs were included. In 1924-1925 these amounted to a further 1,322,515 tons in addition to the above figures and represented a further value of approximately £25,000,000.

MADRAS,

September 23, 1925.

H. WADDINGTON,

Secretary,

U.P.A.S.I.

COMMERCIAL AND METEOROLOGICAL

I. The Rupee Exchange for the week ending September 19, 1925

Bank Selling Demand Draft on London

14th	15th	16th	17th	18th	19th
18 5/32d.	18 5/32d.	18 5/32d.	Holiday	18 5/32d.	18 1/8d.

II. Summary of latest Market Reports and Prices to hand :—

(a) Some of the higher London Prices—

Highest prices realized on the London Market			Average prices obtained for tea			
Mark	Pkgs.	Price	District	Week ending August 29, 1925	January 1 to August 29, 1925	January 1 to August 29, 1924
(1) TEA (WEEK ENDING AUGUST 29)		s. d.		s. d.	s. d.	s. d.
(a) Annamallais—						
Thonimudi ...	281	1 3				
(b) Central Travancore			N. India.	1 3·09	1 4·99	1 5·76
Fairfield ...	87	1 2½				
Glenmary ...	123	1 1	S. India.	**1 1·75	††1 5·80	††1 6·15
(c) Coorg—						
Glen Lorna ...	44	0 11	Ceylon...	1 5·93	1 7·55	1 7·77
(d) Kanan Devans—						
Munaar ...	41	1 6½	Java ...	0 11 82	1 0·67	1 2·62
Chundavurrai ...	139	1 6½				
(e) Nilgiris—			Sumatra.	No sale	1 4·22	1 4·81
Nonsuch ...	134	1 9				
Craigmore ...	75	1 4½	Nyassa-land.	1 0·42	1 1·08	1 4·25
(f) Nilgiri Wynaad—						
Deverashola ...	108	1 2½				
(g) South Travancore—						
Poonmudi ...	154	1 1				
Braemore ...	31	0 11½				
(h) Wynaad—						
Fringford ...	35	1 0½				
Chulika ...	78	0 10				
(2) No. 1 COFFEE (WEEK ENDING AUGUST 29)						
(a) Annamallais—						
Anaimaad ...	57	130				
(b) Mysore—						
Hosthote ...	21	126				
(c) Nilgiris—						
Craiglamont ...	5	127				
			Total	* 1 3·67	† 1 5·49	† 1 6·12

** Based on 6,760 packages.

† " " 122,125 "

†† " " 95,728 "

* Based on 85,112 packages.

† " " 1,966,168 "

† " " 1,865,314 "

(b) *Precis of reports on London Markets received on September 21 and covering the week ending August 29—*

(1) *Tea.*—The market during the week under review evinced simultaneously both a marked rise and a marked decline. The former of course related to good teas which were in keen demand at an advance on last week's prices; while the latter was evidenced in connection with the inferior grades, and some of the lower grade South Indian tea for example often marked a fall of $1\frac{1}{2}d.$ to $2d.$ per pound.

(2) *Rubber.*—During the week under review the 'Spot' price for ribbed smoked sheets, which was $4/6\frac{1}{2}d.$ at one time in July, averaged only $3/4d.$; with 'October-December' and 'throughout 1926' deliveries respectively of $2/8\frac{1}{2}d.$ and $2/3d.$; but the closing tendency of the market was firm, as higher prices are expected when American buying is resumed and the manufacturers of that country are thought to be short of stocks to an extent which may well absorb the increased releases which will be made during the present half year under the Restriction Scheme.

(3) *Coffee.*—Brazilian prices again advanced; but the market for East Indian was inactive and dull, though there was no recordable falling off in price.

III. Weekly Rainfall Statement

From April 1, 1925, up to and including Saturday, September 19, 1925

Stations are arranged in order approximately south to north and those not in planting districts are shown in small capitals.

Stations	W.	P.	Total	Stations	W.	P.	Total
1. Kalthuritty.	N.R.	59.98	N.R.	17. Coonoor ...	0.44	13.98	14.42
2. Tenmalai ...	Nil	62.63	62.63	18. Kotagiri ...	0.51	19.53	20.04
3. Mundakayam.	Nil	117.26	117.26	19. Ootacamund	1.26	26.32	27.58
4. Peermade...	0.41	134.02	134.43	20. Yercaud ...	0.92	27.41	28.33
5. V'periyar ...	0.02	55.58	55.60	21. Devala ...	0.56	111.36	111.92
6. Kalaar ...	0.67	178.88	179.55	22. Gudalur ...	0.31	61.22	61.53
7. Chittuvurrai	0.35	20.90	21.25	23. CALICUT ...	Nil	108.29	108.29
8. BODI'KANUR	Nil	5.53	5.53	24. Kuttiyadi ...	Nil	145.15	145.15
9. COCHIN ...	0.06	78.04	78.10	25. Vayittiri ...	0.62	136.32	136.94
10. Mooply ...	0.36	82.45	82.81	26. Manantodi...	0.18	98.12	98.30
11. Pachaimalai	1.76	93.46	95.22	27. Billigiris ...	1.80	41.45	43.25
12. Mudis ...	0.95	154.24	155.19	28. Sidapur ...	2.21	53.36	55.57
13. POLLACHIE.	Nil	16.14	16.14	29. Somwarpett	0.92	65.10	66.02
14. Manjeri ...	Nil	93.94	93.94	30. Ballupete ...	1.38	60.47	61.85
15. Nilambur ...	Nil	80.66	80.66	31. MANGALORE.	0.06	124.56	124.62
16. Naduvattam	0.82	67.34	68.16	32. MADRAS ...	0.01	15.41	15.42

W = During the week.

P = Previously.

N.R. = No return.

N.B.—The rainfalls recorded are those experienced at one particular station in each district and therefore may be at considerable divergence from the average of the district as a whole, which of course could only be struck with anything like approximate accuracy if five or six times the present number of returns were received. Mr. W. A. J. Milner of Twyford Estate for example has from April 1 to September 19 inclusive recorded 169.23 in. of rain as against the Peermade Experimental Station's 134.43 in. recorded above.

The Planters' Chronicle

Recognized as the Official Organ of the U. P. A. S. I. (Incorporated)

Managing Editor's Postal Address : POST BOX 155, MADRAS

Do. do. Registered Telegraphic Address: UPASI, Madras

VOL. XX, No. 40] SAT., OCTOBER 3, 1925 [PRICE, AS. 8

CONTENTS

	PAGE		PAGE
Editorial Notes ...	727	Proceedings of U. P. A. S. I.	
Kenyan Coffee ...	729	Sports Club Committee	
The Brazilian Coffee Trade ...	730	Meeting ...	737
Hevea Experiments in Florida		District Notes—	
(concluded from issue of		Shevaroys ...	738
the 26th) ...	733	Coorg Paper Chases ...	739
The Hon. Mr. S. J. Best on		U. P. A. S. I. Sports Club ...	740
Tea in North-East India ...	735	Commercial and Meteorolo-	
		gical ...	741

EDITORIAL NOTES

As a contribution which a Correspondent kindly sent us recently appears to have gone astray in the post; we should like to *Ourselves* inform those of our readers, who are good enough to send us matter for publication from time to time, that our invariable custom is either to acknowledge or to publish immediately all the articles received; so that Correspondents may safely assume that 'copy' has gone astray in transit which is neither acknowledged by return nor published in *The Chronicle* of the week following that in which it should have been received by us.

On page 562 of our issue of August 8 we advised our many *Matters Marine* readers who travel by the 'Bibby Line' that that Company had contracted for a 10,000 ton Passenger Steamer modelled on the engineering side after the Diesel marine engine driven passenger and cargo boats the *Dorsetshire* and *Somersetshire*. Messrs. Peirce, Leslie & Co., who are, as our readers will note from the advertisement on page ix in this issue, Booking Agents for the 'Bibby Line' now advise us that their Principals have contracted for another Motor Passenger Vessel of the same type.

We congratulate this company on being able to present at the first Ordinary General Meeting held at Ootacamund on Wednesday, the 23rd ultimo, a report showing such excellent results for the year which ended on the 30th of last June and such exceptional promise that the prosperity achieved in the year which has passed will be maintained in the year which has just begun. It has been found possible not only to give the shareholders 17½ per cent on their capital but also to transfer Rs. 75,000 to Reserve, to allow for ample Depreciation, and to bring forward a working Balance of just over Rs 15,000. The Estates—Nonsuch, Upper Droog, Ibex Lodge and Avoca—which the company owns comprise 62½ acres of tea in bearing and 45 acres of young tea, in addition to 6½ acres and 10½ acres planted with Gum Fuel and Coffee respectively; and there is also close on 300 acres of land in reserve.

We understand that Mr. Harvey S. Firestone has raised \$100,000,000 through a syndicate to inaugurate the Liberian Scheme which we dealt with on page 489 of our issue of July 18. *Fire (and brim?) stone* With this he proposes to plant one million acres with Rubber, so that he is calculating with the optimism which seems to characterize the whole venture that it will only cost him £20 per acre to open up. Presumably however experiments on the 1,200 acres nucleus referred in our previous article on this subject have satisfied him that his stupendous expansion scheme is financially sound. These twelve hundred acres, we may note, were established by a British concern called the Munrovan Rubber Company and in 1909 were replanted with Para, as it was found that the Funtumia originally put in was not a success. This Para has presumably thriven, or at any rate satisfied Mr. Firestone that it would have thriven if it had been under American instead of British control. If so it has fared better than the old Liberian Rubber Corporation which was floated in 1905 with such authorities as Sir Harry Johnstone, Sir West Ridgeway and Mr. Alfred de Cros of Messrs. Dunlop sponsoring the statement that Liberia was a perfectly wonderful rubber country which would give the company 300,000 rubber trees in six years and secure enormous dividends for those who invested their capital therein. In the event, however, the shareholders found that this capital which they had sent to West Africa had 'gone West' also in the metaphorical sense.

Elsewhere substantial, if relatively far more modest, schemes are afoot. There is talk of half a million acres available in the Phillipines with an estimated annual production of 70,000 tons; we understand that the United States Rubber Company through its subsidiary the General Rubber Company has by purchasing the Belgian Gurun Estates in Malaya added some 6,000 acres to their holdings of 110,000 acres in the Far East; and the article concluded elsewhere in this issue deals with the possibility of rubber growing in The States themselves.

It is devoutly to be hoped that the recent utterances and writings of such men as Earl Birkenhead, Sir C. E. Low, Syed Erfan Ali, Professor Gangulee and Mr. J. A. Gwynne the Ex-Chairman of the U.P.A.S.I. regarding the stupendous importance of Agricultural Science will be taken to heart by those who could if they only would give a much needed impetus to this all important branch of research. As things are at present the indifferents are many and

the enthusiasts are few, but history teaches that a large mass of indifference is unable to subdue even a minute atom of pioneering zest. What happens fortunately is that in course of time the enthusiastic particle leavens the inert mass. But in the interim the way of the pioneer is hard.

Last month no less than 34 members of the Bombay Legislative Council opposed the very modest sum of just over Rs. 3 lakhs which was required to establish an Agricultural Research Station in Sind in connection with the Lloyd Barrage Scheme which is expected to cost Rs. 52 crores; though experience in past has conclusively proved that water-logging may, unless preventive measures are taken, lead to the formation of toxic salts which render sterile formerly fertile land. One might reasonably have expected in such circumstances legislators supposed to be alive to the real interests of the ryots would have insisted that the establishment of an Agricultural Research Station should proceed *pari passu* with the Lloyd Barrage Scheme.

The attitude of the Governor of Bombay is in encouraging contrast with that of his Councillors, and we are glad to note that His Excellency at the recent annual social gathering of the Poona Agricultural College made the following remarks in the course of a comprehensive and interesting address:—'My Government and especially the Minister for Agriculture are in full sympathy with the work of this College and may be relied upon to give every feasible encouragement to you in your endeavour to promote agricultural interests. As that interest increases there will be a wide avenue of employment opened up for your graduates. Agriculture is a science as well as an art. Practice makes it perfect. Agriculture is amongst the noblest of all professions and does incalculable good to our fellow-men and to the country as a whole.'

KENYAN COFFEE

The attention of our readers was last week drawn to Ugandan Coffee by the reproduction on page 719 of the relevant paragraphs of the Ugandan Director of Agriculture's Report for 1924. It seems therefore opportune at this juncture to survey the coffee position in the eastern neighbour of that country, by noticing briefly a 13-page bulletin by Mr. Arthur D. Le Poer Trench—the Senior Coffee Officer in Kenya—which has reached us during the course of the week. The material at our disposal from this source, however, does not lend itself readily to informative comparison with the Ugandan report published last week; for, whereas the latter dealt primarily and indeed almost exclusively, with the strong and weak points of two species of coffee, the former comprises a comprehensive survey of the Industry as a whole.

Coffea Arabica was planted by the Rev. Father Etienne at Bura in 1893 and by Mr. John Patterson in Kikuyu in 1896, but such scanty developments as were effected in the following one and a half decades received a severe check in 1912 when *Hemileia Vastatrix* (Leaf Disease) which had wrought such devastation in Ceylon appeared upon the scene. Kenya however successfully combated the invader which had triumphed in Ceylon, and the determining factors in the preventative spraying operations were probably the dryness and altitude of the coffee tracts. To-day leaf disease gives little trouble and Cutworms, Antestia, Scale insects, and Thrips, are the most destructive insect pests. The Agriculture Department however is confident that all are quite amenable to disciplinary

treatment; and this confidence is justified by the great strides made by the industry during the past ten years, which have seen an increase in the cultivated acreage from 6,000 in 1915 to 65,000 in 1925.

Coffea Arabica is apparently happier in Kenya than in Uganda where in certain districts the more adaptive *Robusta* is cutting it out. It favours, and in Kenya receives, an extremely fertile rich dark chocolate loam soil, maximum and minimum temperatures of from 75° to 88° and from 56° to 38° respectively, high (4000-6000 ft.) altitudes conducive to good quality, albeit low yield, and a yearly rainfall of from 38 to 60 inches the greater part of which is experienced in the March-May and November 'rains.'

The 1923 exports comprised 139,060 cwts. valued at £491,416 or just three times the figure we cited for Uganda last week. Mr. Trench estimates that a 150 acre estate with a yield of 6 to 7 cwts. per acre should be able to produce a ton of clean coffee on the London Market at from £38 to £44 per ton inclusive of all estate expenditure, incidental charges, transport, and freight; which would give a clear net profit of £12 to £14 per acre or £38 to £44 per ton at even the very conservative average selling price of £82 per ton.

The estates, unlike those in the Ugandan Director of Agriculture's jurisdiction, are not unduly large and average about 150 acres; though a few individual plantations have from 300 to 550 acres of coffee planted out.

Wages from the point of view of earning are extremely low being only 10s. to 14s., in addition to food costing about 4s. per month; but, despite this, the labour is so unskilled that the pay stands comparison with that obtainable in other countries where the *per capita* output is reasonably large. In other words, the Kenyan labourers' earnings—though absolutely low—are relatively high.

It is interesting to note that the Industry has an Organization very akin to that of the U.P.A.S.I.; each district having its own local District Association that may affiliate with the Coffee Planters' Union of Kenya which represents the Planting Community as a whole.

THE BRAZILIAN COFFEE TRADE

Formal Estimates of the Current Crop

The Coffee Commercial Centre of Rio de Janeiro, through the medium of a special committee, have, says *The Produce Markets Review*, just announced their formal estimates of the current crop. They conclude that there should be available for export from the Port of Rio de Janeiro, between July 1, 1925, and June 30, 1926, a volume of 3,750,000 bags of Rio type coffee. With reference to their estimates for the past season having been exceeded by actual deliveries, states the *Monthly Review* for August of the Bank of London and South America, Ltd., the committee explain that, owing to the Santos Dock congestion, some shipments of Sao Paulo coffee were actually despatched via Rio de Janeiro. Moreover, the entries from the State of Espirito Santo were somewhat larger than given in the forecast, in response to the encouragement of high prices which were obtainable for last crop.

At the end of August a mission of three experts, representing North American coffee trade interests, arrived in Rio, their objective being to investigate the conditions of coffee production, especially in relation to the high standard of prices now ruling. At a preliminary assembly Dr. Augusto Ramos voiced the views of Brazilian coffee circles. He briefly surveyed the present situation of the producers, showing how the increased cost of labour, transport, and material in every branch of the industry had conjointly made the repeated advances in price unavoidable. Furthermore, he demonstrated that current quotations were fully justified, and asserted that the tendency appeared to indicate the possibility of even higher prices in the near future. After comprehensive examination of the State of Sao Paulo, where the American experts had ample opportunity to make first-hand investigations, they formulated their deliberations into a concrete proposal, which was submitted to the Coffee Defence Institute. Their suggestions have apparently not met with entire approval on the part of producers and exporters, and although not yet made public, it is understood they propose a minimum stock of 2,000,000 bags should be maintained in Santos, and that a tax of 400 reis should be levied on each bag of coffee shipped, in order to provide funds for a selling propaganda of coffee in the United States of America.

The June recounting of actual stocks in Santos disclosed a difference of half a million bags less than current estimates had given. The Minister of Transport has resolved, in response to the solicitation of the Cia. Brasileira de Exploracao de Portos, to augment to 200 reis the tax per sack of coffee exported a broad, as remuneration of the services rendered by the Port Company in this connection. Gathering of the new crop has already begun at Ribeirao Preto and in other centres, and with the prospects of increasing supplies, market quotations have weakened somewhat during the past few weeks, Rio type seven changing hands at Rs. 51,5000 per arroba on July 1.

In the opinion of the Brazilian Vice-Consul in New York, the coffee trade is much perturbed by the machinations of speculators, who create unfounded rumours and cause unwarranted oscillations in prices, the result of which is a general lack of confidence. It, by a frank co-ordination of interests between the producer and consumer, stability could be established on an equitable basis as regards prime costs and ultimate selling price, then consistent public support would be assured to Brazil's staple product. On the other hand, he thinks that there has been a partial failure on the part of the selling trade to understand basic conditions which now govern the cultivation of Brazilian coffee. Due allowance should be made for the vagaries of weather, the ravages of the past, traffic congestion and increased costs owing to delay of transport, and also the reduced purchasing value of the milreis. Evidently the non-recognition of these cogent factors has engendered a spirit of dissatisfaction and resentment among the merchants, prompting buyers to turn their attention to other sources of supply. In this latter connection the eventual possibility of serious competition is becoming a matter of real concern to the more far-seeing Brazilian, and the growing capacity of Colombia is recognized as a by no means negligible quantity. However, present conditions throughout the country are admittedly stressful, although transitional, and with the inevitable return of tranquillity and stability, transport facilities should improve, and increasing cultivation of other products will then assuredly follow, exchange would rise in consequence, and prices react to a more normal basis.

A process of readjustment of values is now being witnessed, and though the pendulum of vested interests may have swung unduly far, it is evident that a just equilibrium cannot be long deferred without prejudicing the future of the industry. During April last the United States of America imported 49,168,000 lb. of Brazilian coffee, compared with 62,904,000 lb. in the same month of 1924. In April of this year the importation of Colombia coffee into the United States was 17,044,000 lb., whereas in the corresponding month of 1924 the volume was 19,507,000 lb. Shipments from Rio during last month amounted to 157,230 bags.

SANTOS.—In order to maintain prices at their present level, a further limitation of entries of coffee into Santos has been ordered, i.e., from 30,000 to 20,000 bags per day, there being days when this amount was reduced to less than 10,000 bags. This measure was counselled owing to the fact that experience has shown that the policy of accumulating stocks at Santos is a dangerous one. The particular feature of the market during May was the panic at Santos on the 12th, when quotations for futures dropped 1½500 per 10 kilos, due to the rumour that the State Government was not in a position to pay for the stocks which had been purchased by the Coffee Defence Committee. A Government announcement to the effect that it could meet promptly all obligations, and that offers had already been received for the stocks held by the Government, restored confidence to the market.

The statements made by the American Coffee Mission now visiting Brazil are to the effect that there is no boycott, as such, of Brazilian coffee in the United States, but that, because of high prices and large stocks in the hands of retailers, there has been a falling off in demand by wholesalers. This decrease in consumption is reflected in the export movement at Santos, Rio de Janeiro, Victoria and Bahia, and, although definite statistics for exports of the 1924-5 crop will not be available till June 30, it can be estimated that the export movement of the present crop will show a decrease of nearly 3,000,000 bags, as compared with the export movement of the 1923-4 crop. Price of spot 4s. ranged from 37½000 to 38½000 per 10 kilos, with futures oscillating between 40½425 and 43½275. Shipments during May were 491,670 bags, of which 231,928 bags were destined to the United States and 196,506 bags to Europe. The statistical position on May 30 was as follows:—

			Bags.
In warehouses and on board at Santos as at April 30	...	...	2,131,303
Entries during May	...	...	418,441
			2,549,744
Shipments to May 30	...	...	491,670
			2,058,074
Stock on hand, May 30	...	...	...
Stocks in the interior on the same date were as follows:—			
			Bags.
In Government warehouses	...	...	2,243,436
In wagons and railway stations...	...	...	110,000
On Plantations	...	...	50,000
			2,403,436

which, added to the above, gives a total of 4,461,510 bags.

BIBBY LINE

FAST TWIN SCREW MAIL, OIL BURNING, STEAMERS

COLOMBO, PORT SAID, MARSEILLES AND LONDON

Date of Sailing from Colombo.	Steamer.	Date of Sailing from Colombo.	Steamer.
14th October 1925	Yorkshire	17th February 1926	Leicestershire
28th „	Warwickshire	3rd March	Herefordshire
11th November	Leicestershire	17th „	Gloucestershire
25th „	Herefordshire	31st „	Oxfordshire
9th December	Gloucestershire	14th April	Lancashire
23rd „	Oxfordshire	28th „	Yorkshire
6th January 1926	Lancashire	12th May	Warwickshire
20th „	Yorkshire	26th „	Leicestershire
3rd February	Warwickshire	10th June	Herefordshire

All berths amidships. Only First Class Passengers carried.

For further particulars apply to any of the following Passenger Booking Agents :—

Peirce, Leslie & Co., Ltd.

„

„

„

Harrisons & Crosfield, Ltd.

„

The South Indian Ry. Co., Ltd.

Gillanders Arbuthnot & Co.

Carson & Co., Ltd.

... Coimbatore

... Calicut

... Tellicherry

... Mangalore

... Quilon

... Cochin

... Trichinopoly

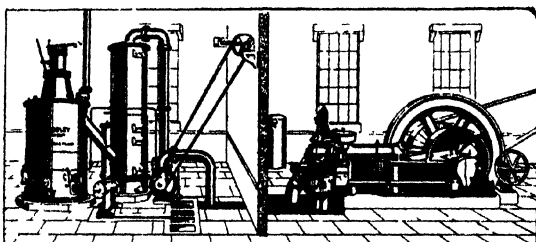
... Madras

... Colombo

CROSSLEY

GAS ENGINES AND SUCTION GAS PLANTS POWER FROM REFUSE

The combination of a 'CROSSLEY' Gas Engine with a 'CROSSLEY' Producer Gas Plant is the most Economical method of generating power.



(Illustrating Suction Gas Engine and Wood Refuse Plant.)

The Special Features embodied in 'CROSSLEY' Engines and Plants are the results of over 57 years continual experience in the manufacture of Really High Class Internal Combustion Engines.

Over 100,000 Engines totalling over 2,000,000 Horse Power have been built and supplied

Sizes from 4 B. H. P. up to 500 B. H. P.

To use all kinds of Carbonaceous Fuels

Crossley Brothers, Ltd.

14, BROADWAY

MADRAS

P.O. Box 1249

Tel.: 'Combustion'

COLOMBIA.—August has been a trying month for exporters, owing to the dull and uncertain tone of the American markets. At the beginning of the month there was a fair demand for Milds, coupled with a good demand for Brazils, but this was apparently due to the filling by manufacturers of their urgent requirements, there being no demand for coffee for shipment. Towards the end of the month demand fell off and Milds were neglected. The market during this period may be summed up as dull, with a downward tendency, with buyers holding off. As regards prices, Medellin Excelso was sold at the beginning of the month for June/July shipment at 28 cents ex-dock New York and Quindios on the same terms at 27½ cents. Exporters were offering Medellin Excelso at 28½ cents ex-store New York, but there were no buyers. Ex-store sales, however, were made at 28 cents. Towards the end of the month there was some pressure to sell on the part of holders, with Medellin Excelso being offered on spot and for shipment position at 27½ cents, with Quindios in the same position 26½ cents. Latest advices confirm sales of Medellin Excelso at 26½ cents and Quindios at 26½ cents, both spot sales. Advices from American importers state that the arrivals of this year's crop of Quindios and Girardots are of excellent quality. Further confirmation has been received that the crops in these two centres will be very small this year, and it is understood that the Bucaramanga crop is also much smaller than in previous years. Exporters, however, are buying steadily, and at the end of the month Girardots were being purchased on a basis of 25½ cents c.i.f. New York.

HEVEA PLANTING EXPERIMENTS IN FLORIDA

FIRESTONE, FORD AND EDISON CO-OPERATING

(Concluded from last week's Issue)

MR. FIRESTONE'S STATEMENT

Following this tour of investigation Mr. Firestone issued a statement which gives promise of early rubber developments of far-reaching importance in Florida. It is in part as follows:—

‘Just what the result of our Florida experiences will be is not yet ready for announcement, but I can say that to date we feel greatly encouraged over our efforts in ascertaining the possibilities of this state as a source of rubber supply.

‘We believe we have found in Florida several varieties of rubber trees, vines and shrubs capable of cultivation on a commercially paying basis. We feel sure that of approximately 600 rubber-yielding plants known to exist to-day about 100 will grow in suitably selected localities in this state. Of these 100 varieties’ indications point to many with promising possibilities of economic use. They seem to be not alone capable of cultivation but also of producing rubber in quantities and at costs of production which should actually make them commercially profitable.

‘It is quite possible, however, according to our experts, that some means of extracting the latex might be employed which is different from the methods employed in the Far East and other rubber growing areas—and these new methods may prove even more effective,

'We believe certain species of varieties of rubber plants in Florida are susceptible of mechanical handling, obviating the manual means now in vogue in foreign countries where rubber is produced.

'This mechanical handling, it is safe to assume, would increase as well as hasten yields, materially reducing cost of production.'

FLORIDA CLIMATIC CONDITIONS FAVOURABLE

M. A. Cheek, late of Singapore, the Firestone expert, asserts that the climatic conditions, soil texture and contents, rainfall and extent of moisture in these localities make the cultivation of rubber trees on a large scale possible. There is no doubt that rubber trees of a large number of varieties can be grown in this state. No plantations have yet been started because the type of plant to be used and the methods to be applied have not yet been decided on.

HEVEA MAY HAVE TO BE ABANDONED

As an example of the problems confronting the investigators, take the Hevea tree, considered as about the best rubber producing plant known. The prevalent method of obtaining the latex from this tree is that of tapping by hand, and under the cheap labour conditions found in the Far East the operation is profitable. However, the price of labour is going up and unless some other way of obtaining the yield from the Hevea can be found, the cultivation of this type of plant may have to be abandoned.

LATEX MUST BE OBTAINED MECHANICALLY

The cost of labour in Florida would prevent profitable cultivation of the Hevea, although experiments at Chapman Field show that it can be grown here. If, however, another way of separating the latex from the tree can be discovered, it may be that the Hevea would be chosen for intensive cultivation in Florida.

Mr. Cheek intimated that efforts are under way to invent a mechanical process for obtaining latex from the Hevea and other trees, thus eliminating the manual labour problem. The engineering staffs of the Edison and Ford companies are working upon this angle of the situation, which should hold out material hope for success.

SIGNIFICANCE TO FLORIDA AND THE NATION

Not only would the successful commercial cultivation of rubber in Florida be a distinct economic contribution to the national welfare, providing a supply of raw material close at hand under American control and tending to stabilize the crude rubber market as well as rubber goods prices, but it would be of vast importance to Florida from a development point of view, especially in regard to opening up the Everglades for a yield of raw materials. It would put thousands of acres under cultivation, bring added capital to swell the state's prosperity, and give employment to hundreds of men. The growing significance of Florida as a producing centre would be immeasurably enhanced.

AMERICAN RUBBER NEEDS AND FLORIDA POSSIBILITIES

It is hoped that American interests will ultimately control from 40 to 50 per cent. of the world's rubber supply, or at least of the sources whence will come the raw material necessary for its factories. America is slated to consume about 365,000 tons of crude rubber in 1925. The average per acre yield in the rubber plantations of the East is about 300 pounds, so that it will require the product of 2,725,300 acres to satisfy the United States rubber demand.

Next year the consumption will be even greater, it is thought, so that it has become, to say the least, a pressing necessity for American manufacturers to find available rubber yielding acreage at the earliest possible moment.

Much of the necessary acreage is available, it is believed, in and about the Everglades. This great so-called 'lake,' some of it inundated and including much swamp, but much low-lying land besides, and most of it capable of drainage, comprises some 8,000 square miles or 5,120,000 acres. On this now valueless area, when suitably reclaimed, may yet be grown an adequate crude rubber supply under the American flag and by original American methods.

THE HON. MR. S. J. BEST

ON

TEA IN NORTH-EAST INDIA

Speaking at a recent meeting of the Calcutta Rotary Club, the Hon'ble Mr. S. J. Best, Chairman, Indian Tea Association, is reported by the *Planters Journal and Agriculturist* as having said :

MR. PRESIDENT AND GENTLEMEN,—

In attempting to tell you something about tea I feel rather that I am talking about a drink we all know about already, at any rate in the cup, but possibly I may be able to tell you something about the history and manufacture of it which may interest you.

No paper on tea would be complete without a short history of its original discovery in Assam as an indigenous bush. As you probably know, the early part of the nineteenth century found the importation of tea into Europe entirely in the hands of the Chinese. But in 1834 a Committee was appointed in Calcutta by the Government of the day to consider the question of introducing a supply of plants from China and to decide the most suitable place in India in which to grow them. As a result of this Committee's work a Mr. Gordon was sent to China to bring back plants and seeds. In the meantime the Committee had come to the conclusion that the country round Mussoorie and Dehra Dun was the most suitable for tea growing, and on Mr. Gordon's return the plants were actually planted there in 1835 at Kasauni, a garden for which my own firm were at one time the Managing Agents and which I have myself visited. This garden still exists, the bushes being now 89 years old. In the meantime a Captain Jenkins, who

was in executive charge of the Assam Valley and lived at Gauhati, came to learn that so far back as 1815 bushes similar to tea bushes had been known to exist in the hills bordering the Valley; in fact, a Mr. Bruce had grown certain camelia bushes in his garden at Sadiya in 1826; but they were not then known to be tea bushes. They were finally identified as tea in 1836 just when the Kasauni garden was started with the planting of the bushes brought all the way from China. On the definite identification of the tea bushes in Assam the Government of the day (Lord W. Bentinck) then set to work to experiment with tea growing on a commercial scale which it carried on for some years with only qualified success. This is hardly to be wondered at considering that Assam in those days consisted of vast tracks of some of the thickest tropical jungle in the world, sluggish, swampy rivers and high grass land—a country almost entirely depopulated by civil wars and periodical raids from Burma. The man appointed by Government to have charge of these experiments was a Mr. Bruce, and he had become acclimatised to the trying conditions of Assam by long residence there and he seems to have been an admirable man for the job. His first consignment of tea, consisting of five boxes, was sent to Calcutta in 1836 and the then Viceroy, Lord Auckland, drank some of it and said it was good.

THE FIRST CONSIGNMENT TO ENGLAND

But it was not till 1838 that the first Indian tea was sent to England in eight chests weighing in all 350 lbs. and fetched from 21 to 34 shillings per lb. It was all bought by a Captain Pidding who is spoken of as a public-spirited man, who, if he wanted, could have bought the stuff for 1s. per lb., for it was very bad tea, but he gave these enormous prices purely to advertise the fact that the tea had been produced in British Assam. History does not say what he did with it, but I doubt if he drank it. The next year, 1840, 95 packages were shipped to England and fetched from 2s. 3d. to 3s. 3d. per lb. and this tea was of much better quality. Up to 1840 the Government had borne the whole cost of the experimental tea growing scheme under Mr. Bruce, but now a number of Calcutta financiers sought to take over the experiment from Government and formed for this purpose the Bengal Tea Association. At the same time a similar Association was formed in London and the two Associations were amalgamated and called the Assam Company with two controlling bodies, one in Calcutta and one in London, an arrangement which seems to have invited disaster. It was feared by some that the formation of this Company would mean that it would obtain the monopoly of tea production in Assam and opposition to it was raised by Sir Charles Forbes, one of the proprietors of the East India Company, but he obtained an assurance that no exclusive privilege in Assam would be granted to the Company. Now the condition of the country at this time was very aptly described by Captain Jenkins, the Administrator of Assam, as a country flowing with milk and honey with provisions abundant and easily procured but only lacking labour and capital. The latter was now being provided by the Assam Company, and it was spent lavishly and foolishly in all sorts of unnecessary buildings and equipment; but the labour difficulty was then and still is at the present day, the chief obstacle to the rapid development of the Tea Industry. The Company went through an anxious time as regards labour, the indigenous inhabitants of the country would not work and all sorts of experiments were tried such as importing Chinese from China and coolies from Chittagong and the Central Provinces; but ill-health and ill-luck pursued

the Company and its labour and its European staff who died like rats, of cholera, fever and other diseases inseparable from newly opened up swampy virgin forest tracts. But in spite of this by 1840 the Company had 2,640 acres of tea in actual production, though we are told that these acres were very thinly populated with tea bushes, and most of the area consisted of groups of tea plants found in the jungle and then cleared up and cut down for leaf yielding. This is very different to a modern tea garden laid out with such geometrical exactitude that there are precisely the same number of bushes in one acre as in any other acre of the 1,000 acres or more that the garden may consist of.

(To be concluded next week)

U.P.A.S.I. SPORTS CLUB

Committee Meeting

Proceedings of a Committee Meeting held at the West End Hotel,
Bangalore, on the evening of* August 16, 1925.

Present

Mr. B. M. Behr (who took the chair in the absence of the President), Capt. Nixon, Mr. Waddington (*Treasurer*) and Mr. G. W. Fulcher (*Honorary Secretary*).

Membership Rules were considered unsatisfactory as they stood and certain alterations were framed for sanction at the next General Committee Meeting of the U.P.A.S.I., the object being to make it easier for young planters to join the Club, by asking District Associations to make personal membership subscriptions nominal and uniform in all districts.

Inter-District Cricket.—Cup offered by Sir Fairless Barber. Whether this should be in the form of inter-district or inter-group of districts was deferred to the next meeting of the Committee.

Inter-District Tennis.—The meeting was in favour of alteration to International Davis Cup scoring, and considered that the present scoring, necessitating that all singles be won should the doubles be lost, hardly fair. The matter was raised owing to complaints having been received.

Club Colours.—The meeting was in favour of the Club having its own colours. Suggested that U.P.A.S.I. colour be green and each district have its own distinguishing mark when playing inter-district events. The shade of green to be dark enough to look well when made up into a blazer.

Rugby Football.—It was hoped that the Club would be represented in the Madras Tournament this year in October. As regards men's expenses, the meeting considered that money spent on U.P.A.S.I. representative teams would be well spent. A limit of Rs. 1,200 was imposed.

The team would be put up in Madras.

* The Honorary Secretary, U.P.A.S.I. Sports Club, asks us on his behalf to express regret for the belated publication of these minutes, which is due to the loss in transit of the original copy which the President of the Sports Club forwarded promptly to us.—*Ed.*

Murphy Tennis Cup (Ladies).—Mr. Murphy's suggestion that the Cup be in the form of the Bangalore Race Club 'Apollo' Cup. This Cup was on view at the B.U.S Club and considered not suitable for a Tennis Cup, it being in the form of a bronze horse. It was therefore decided to order a small edition of the present inter-district tennis cup, which is considered as pretty a shape as any.

The order has been given to Messrs. Barton Son & Co.

Outstanding Bills From Ooty Meet.—The Honorary Secretary was instructed to pay out of Club funds the bills of those who had left the country. Further reminders to be sent to the others.

With a vote of thanks to the Chair the meeting terminated.

B. M. BEHR,
President.

G. W. FULCHER,
Honorary Secretary.

DISTRICT NOTES

Shevaroyys

Social.—Capt. and Mrs. E. Dickens have given several 'At Homes' this month, and very enjoyable functions they were. There was a fancy Dress Dance at the Victoria Rooms on the 14th and with the kind permission of Mr. Percival, the D. S. P., the Police Band was in attendance. Dancing was kept up till 3 in the morning and great credit is due to Mr. Whittle, the indefatigable Honorary Secretary of the Victoria Rooms, ably assisted by Mrs. Whittle, for the extremely jolly time they gave us. Mr. Brigstocke, our Collector, and Mrs. Brigstocke, and a few other visitors are up so that, as a Correspondent in the *Madras Mail* of the 13th has it, 'the recent influx of visitors from the plains enabled Yercaud to open its Autumn Season.' We are now anxiously waiting to hear the date on which our Winter Sports will open!

Rubber is from all accounts doing very well up here this year. We have about 1,200 acres of Para under tapping on these Hills, though none of it has so far come into the Association. It may interest Rubber Planters in other districts to know that Para on the Shevaroyys does not suffer from Secondary Leaf Fall, though owing to the small rainfall it does not yield as heavily as it does elsewhere.

Weather.—September started with a fine spell, and on the 17th the N.-E. Monsoon made a feeble attempt to establish itself and this has been followed by severe thunderstorms and heavy to moderate rain in parts. To-day it looks as if the N.-E. Wind has conquered.

General.—A motor service for passengers up and down the Ghaut was started last month and the rates charged are very moderate so it certainly ought to become popular. It has already met with all the patronage it is possible to get at this time of the year, as it is a far more pleasant and less fatiguing method of travel than the old chair with bearers. It is hoped that the Government will encourage the Service by giving it the Contract

for the Mails. We would then get our letters by 8 in the morning instead or at 10.30 as we do now.

Several planters have suffered during the past from thefts of one and two-year old plants. Mrs. Lechler lost nearly 200 from her old coffee last month and two Indian Christians have been charged. It is hoped that the police will succeed in bringing the guilt home to whoever may be the culprits.

Coffee Pests.—Leaf disease is in evidence now everywhere but not yet in a severe form. Borer has been more troublesome than usual on the low-lying Estates and one Estate has cut out 800 trees. Both mature beetle and grubs have been found in the same tree at the beginning of September. If the beetle is going to fly in all months of the year it is going to be a very difficult problem to deal with. Green Bug, on the Eastern slopes is showing signs of recurring while on the Western Estates it has been practically killed out by the Blue Mold. In my notes for last month *re* Spraying for Leaf Disease, '14 acres have been done with two gallon Holder Sprayers,' should read '14 acres have been done with two 2 gallon Holder Sprayers.' It will interest coffee planters to know that the cost of materials and labour worked out to almost exactly Rs. 7 per 1000 trees.

Crops are going to be small this year; but early, as the berries are already turning yellow and on one Estate there was a large gang picking a couple of days ago.

Prices.—Offers of Rs. 90 to 92 per cwt., for parchment, have been made for immediate delivery but nothing is doing locally as most of the merchants are too busy getting round the villages seeking whom they may devour. This is the time when demands are issued for payment of tax on certain lands and as the grain crops have not come in yet, the local inhabitants have to get the money either from the Planter or the Money Lender. This year the Planter is not out to help the local cultivator and we all know the reason why. The latter must feel proud to rank with the proprietor who hypothecates his crop, at any rate the Money Lender must be grateful. The next thing we shall see is the establishing of a *Mont de piété* in each village.

Our sincere thanks are due to Mr. Anstead for his letter in the *Planters' Chronicle* of the 12th instant *re* Coffee and lime and for the kind interest with which he is following our doings and sayings while on his holiday.

September 24, 1925.

E. H. A. T. D.

Coorg Paper Chases

On September 21, Sumboor and Hallory were 'At Home' to the district. In the morning the trial steeple-chases for horses and ponies were held, the opportunity to judge form being given to the handicappers for the annual steeple-chase to be run at Sunavasunti on October 24.

The Sumboor course was laid on the Travellers' Bungalow bané, and being designed and carried out by Mr. Nicolls of Sumboor was 'of the best.' The distance for the horses was about 2 miles over 14 brush jumps of average height 3 ft. 9 ins. A compact 2 ft. 6 ins. of thickness allowed for no 'chance jumping.'

Nine horses came under the starter's orders and of these five completed the course. Ginger (Nicolls) made the running from Colonel (Davies) for the greater part of the way. Then Baronet (Maurice) took the lead only to drop back as Colonel went ahead. On the last lap Foxtrot (Iron), ridden with great judgement, challenged, established a lead, and won by half-a-length from Colonel in a close finish. Ginger came in third followed by Baronet and The Wallad (Mahon), who, while losing ground in an awkward fall, continued gamely to the end.

Five ponies ran in the Pony steeple-chase, the distance being $1\frac{1}{2}$ miles over 10 fences. Rhoda (Nicolls) made the running from the start. Fox-glove (Sprott) was fancied but seemed unable to stay the pace, and Rhoda had no difficulty in winning from Mighty Atom (Davies) whose strong point is not jumping.

The 'chases were thoroughly enjoyed by all. From the spectators' point of view the Sunboorbané is exceptionally convenient as nine out of fourteen fences can be seen and the finish is close to the starting post. As a result of these trial runs it is proposed to make two divisions for horses to run at Sunavasunti, but it remains to be settled whether the Ball Memorial Cup (the blue ribbon of Coorg Chasing) is to be competed for by First Division Horses or by either of the two Divisions or Pony Class according to lot.

Following the races a 'royal spread' greeted the guests at 'Sunboor.' Bridge and dancing occupied to afternoon until 'weary in well-doing' and 'mellow with wine' we reached the end of another good day.

September 26, 1925.

W. A. D.

U.P.A.S.I. SPORTS CLUB

Madras Rugby Football Tournament

The Planters' Team, whose names were given last week on page 723, having been drawn a bye, will not—as the subjoined table shows—be playing in the above tournament until Thursday, October 8th.

	Gymkhana 'A'			
Mofussil	}	Monday	}	Wednesday
Lancashire Fusiliers				
Ceylon	}	Tuesday	}	Thursday
Royal Ulster Rifles				
Planters				
				Saturday

WOODBRIAR ESTATE
DEVERASHOLA P.O.

September 28, 1925.

G. W. FULCHER,
Hon. Secretary,
U.P.A.S.I. Sports Club.

COMMERCIAL AND METEOROLOGICAL

I. The Rupee Exchange for the week ending September 26, 1925

Bank Selling Demand Draft on London

21st	22nd	23rd	24th	25th	26th
18 1/8d.	18 1/8d.	18 1/8d.	18 1/8d.	18 1/8d.	Holiday

II. Summary of latest Market Reports and Prices to hand :—

(a) Some of the higher London Prices—

Highest prices realized on the London Market			Average prices obtained for tea			
Mark	Pkgs.	Price	District	Week ending August 29, 1925	January 1 to August 29, 1925	January 1 to August 29, 1924
(1) TEA (WEEK ENDING SEPTEMBER 5)		s. d.		s. d.	s. d.	s. d.
(a) <i>Annamallais—</i>						
Karakundru ...	26	1 3	N. India	1 2·97	1 4·92	1 5·84
Sholayar ...	140	1 2½				
(b) <i>Central Travancore</i>			S. India.	**1 0·92	††1 5·62	††1 6·15
Glenmary ...	37	1 4	Ceylon...	1 5·40	1 7·44	1 7·83
Haileyburia ...	26	1 3½				
(c) <i>Kanan Devans—</i>			Java ...	0 10·36	1 0·64	1 2·64
Gundamallay ...	100	1 3½	Sumatra.	1 2·70	1 4·15	1 4·81
Periavurrai ...	127	1 3	Nyassaland.	No sale	1 1·08	1 4·26
(d) <i>Nilgiris—</i>						
Craigmore ...	100	1 5½				
Glendale ...	106	1 4½				
(e) <i>South Travancore—</i>						
Braemore ...	59	1 1½				
Hereford ...	75	0 10½				
(f) <i>Wynaad—</i>						
Panora Elstone ...	80	0 9½				
			Total	*1 3·49	†1 5·42	†1 6·19

** Based on 4,360 packages.

†† " " 126,485 "

†† " " 96,848 "

* Based on 72,932 packages.

† " " 2,039,100 "

† " " 1,921,326 "

(b) *Precis of reports on London Markets received on September 28 and covering the week ending September 5—*

(1) *Tea.*—During the week under review the South Indian average declined further by 0·83d. as against a decline of only 0·18d. in the average price of all the packages sold. The only country which experienced a heavier decline in the average was Java, in which case the fall was 1·46d. Common Tea was down by from ½d. to 1d. per pound during the week ; and a quantity, it is obvious, is being sold at a price in the neighbourhood of production cost. Though the offerings were smaller than in the previous week the demand was also less.

(2) *Rubber.*—The week saw a great advance on the forward prices quoted last week, and October–December and January–March deliveries respectively fetched 3s.3d. and 3s. per pound. Demand from both America and the Continent especially for forward parcels was brisk throughout ; while the London Stocks were reduced by close on 1,0·0 tons.

(3) *Coffee.*—Coffees with any pretensions to colour and boldness continued to be well sought after and generally prices have been more than fully maintained. It seems possible, particularly in view of the continued firmness of Brazilian prices, that before the autumn is over a very acute shortage of quality is likely to be felt.

III. Weekly Rainfall Statement

From April 1, 1925, up to and including Saturday, September 26, 1925

Stations are arranged in order approximately south to north and those not in planting districts are shown in small capitals.

Stations	W.	P.	Total	Stations	W.	P.	Total
1. Kalthuritty.	4·59	59·98	64·57	17. Coonoor ...	4·90	14·42	19·32
2. Tenmalai ...	3·71	62·63	66·34	18. Kotagiri ...	5·19	20·04	25·23
3. Mundakayam.	3·26	117·26	120·52	19. Ootacamund	1·97	27·58	29·55
4. Peermade...	3·30	134·43	137·73	20. Yercaud ...	4·01	28·33	32·34
5. V'periyar ...	1·25	55·61	56·85	21. Devala ...	0·66	111·92	112·58
6. Kalaar ...	3·50	179·55	183·05	22. Gudalur ...	1·23	61·53	62·76
7. Chittuvurra	3·61	21·25	24·86	23. CALICUT ...	0·15	108·29	108·44
8. BODI'KANUR	1·10	5·53	6·63	24. Kuttiyadi ...	1·11	145·15	146·26
9. COCHIN ...	0·99	78·10	79·09	25. Vayittiri ...	N.R.	136·94	N.R.
10. Mooply ...	1·60	82·81	84·41	26. Manantodi...	0·63	98·30	98·93
11. Pachaimalai	6·12	95·22	101·34	27. Billigiris ...	4·75	43·25	48·00
12. Mudis ...	4·77	155·19	159·96	28. Sidapur ...	1·31	55·57	56·88
13. POLLACHIE.	0·80	16·14	16·94	29. Somwarpett	3·19	66·02	69·21
14. Manjeri ...	0·17	93·94	94·11	30. Ballupete ...	4·32	61·85	66·17
15. Nilambur ...	0·95	80·66	81·61	31. MANGALORE.	0·24	124·62	124·86
16. Naduvattam	3·35	68·16	71·51	32. MADRAS ...	0·05	15·42	15·47

W = During the week.

P = Previously.

N.R. = No return.

The Planters' Chronicle

Recognized as the Official Organ of the U. P. A. S. I. (Incorporated)

Managing Editor's Postal Address: POST BOX 155, MADRAS

Do. do. Registered Telegraphic Address: UPASI, Madras

VOL. XX, No. 41] SAT., OCTOBER 10, 1925 [PRICE, AS. 8

CONTENTS

	PAGE		PAGE
Editorial Notes ...	743	Club Colours ...	752
The South-West Monsoon of 1925 ...	745	Madras Rugger Tournament ...	753
The Hon. Mr. S. J. Best on Tea in North-East India ...	746	Care of the Soil ...	755
The Nilgiri-Wynaad Planters' Association—General Meeting ...	751	Exports of Tea, Coffee and Rubber from South Indian Ports during August, 1925.	764
U.P.A.S.I. Sports Club—Subscriptions ...	752	Commercial and Meteorological ...	765

EDITORIAL NOTES

Readers of the article on page 713 in our issue of September the 26 may be interested to see the following resumé of the present position of the tea market which the Editor of *The Outlook for Tea* and *The Planters' Journal and Agriculturist* announces that he has received from an especially reliable source:—'In our opinion we look upon the present position as a temporary phase, and are not at all disturbed as to the future of the industry. We think we are in for very good times indeed; but, just at the present time, owing to several factors working together, we have a glut of medium and common teas in England. A point, however, which must not be overlooked, is that for many months now the trade has had no inducement to buy tea, and with prices sagging week by week has naturally held off the market. It only wants a better statistical position and the commencement of buying by some of the brokers to see all the trade come in to fill up their requirements.'

The following remarks—apropos the current allegations of coarse plucking—made by Mr. J. S. Nicolls at the recent general meeting of The Nonsuch Tea Estates, Limited, are also worthy of note:—

'I feel certain that if South India continues its policy of avoiding coarse plucking, as it has undoubtedly done for some time, we need not feel anxious about the future.'

A Leader in *The Madras Mail* of the 16th instant seriously points to what may, and has to a certain degree already, occurred from an overstocked market: viz. a quick fall in price. I feel certain no producer wishes to see a market of inflated prices. Such a market is not a healthy one. What the producer wants is a steady market, allowing a reasonable return on the cost of producing which does not grow less. Gentlemen, a large number of South Indian Estates' teas pass through my hands, so I am in a position to speak with some authority. In my opinion South India is not plucking coarse, and any increase in her crop is a legitimate one, due to an increase in bearing acreage. In an extraordinary yielding year like the one we have just experienced owing to exceptionally favourable climate conditions a certain amount of difficulty may have occurred owing to factories having to contend with rushes.'

The outcry of *The Financial Times* against the Indian Tea Cess Committee's propaganda in the United States which we noticed on page 713 of our issue of September 26, appears almost hysterical in view of the figures now available with regard to tea consumption in that country during the year ending June 30, 1925. Though the imports of tea as a whole fell off by 12 per cent from 105,000,000 to 92,000,000 lbs.—China and Japan showing decreases of respectively 50 per cent and 17 per cent—the landings from the British East Indies nevertheless increased by over 5 per cent from 41,501,483 to 43,770,045 lbs., and thus represented close on half of the total trade of 92,000,000 lbs.

The subjoined table reduces to percentages the proportionate contributions of each country to the total imports to the U.S.A. :—

		1923	1924	1925
		per cent	per cent	per cent
United Kingdom	...	16.0	16.8	20.5
Canada	...	1.0	0.7	0.7
British East Indies	...	20.5	22.4	26.7
China	...	13.7	17.6	11.1
Dutch East Indies	...	8.9	8.2	6.7
Japan and Formosa	...	37.2	32.5	30.7
Other countries	...	2.7	1.8	3.6
Total	...	100.0	100.0	100.0

The *per caput* consumption figure for 1924–25 was only 0.86 lbs. as against 0.94 lbs. for the previous year.

The Indian Tea Association in a circular dated September 28, 1925 asks all their members to give effect to the restriction policy which has been approved by over 85 per cent of both rupee and sterling companies; and to arrange that the total 1925 crop shall not be in excess of the greater of the two immediately preceeding ones. A proviso is made which allows members to increase the crop from any particular concern in their agency providing they effect a corresponding decrease in some of their other concerns; so that the total output from their agency will not exceed the limit specified above. A further proviso exempts areas which are immature, partly mature, or have a particularly low outturn from the operation of the scheme.

*The Indian
Crop for 1925*

THE SOUTH-WEST MONSOON OF 1925

With the close of September the South-West monsoon may be considered as having come to an end. Although the figures, which we are now obtaining regularly from estates and publishing each week, do not with any completeness date back further than April last, yet we have managed to take out from the records of Government and of the four Experimental Stations of the U.P.A.S.I., Scientific Department figures which make it possible to compare the monsoon rains of the last four years not only with one another, but also with the average rainfall which is given by Government for each of the places mentioned in the table given below.

Rainfall during June, July, August, and September

Recording Station	1922	1923	1924	1925	Average
Kangarapalli	94.15	124.70	138.25	98.24	92.88
Munnai	122.38	176.54	181.87	104.44	108.77
Peermade	108.46	188.69	204.34	128.74	140.62
Mooply	102.54	129.29	167.62	71.82	115.96
Tenmalai	67.03	99.10	115.19	54.94	78.43
Nilambur	109.23	155.23	147.51	62.43	85.42
Managhat	71.06	115.71	162.42	68.49	81.16
Vayitri	135.72	224.22	232.17	128.62	139.70
Manantody	97.57	152.24	169.96	92.11	87.65
Kuttiyadi	179.59	146.46	210.49	131.28	128.34
Devala	115.09	185.09	190.25	100.04	127.88
Gudalur	50.71	98.52	115.90	55.06	69.44
Naduvattum	62.19	105.20	141.45	64.03	75.96
Ootacamund	15.63	19.68	52.06	19.31	25.33
Coonoor	11.68	10.45	16.57	13.13	31.10
Kotagiri	15.73	15.60	38.36	21.10	19.78
Yercaud	32.77	24.96	29.80	25.95	33.28
Mercara	121.62	148.76	143.06	105.50	105.34
Somwarpet	66.98	107.47	96.83	65.27	64.32
Sidapur	36.86	68.77	71.46	50.98	53.41
Totals	1614.55	2296.68	2625.56	1459.58	1664.77
Index Numbers	97	138	157	87	100

We have been unable to ascertain definitely from how many years' figures these averages have been struck, but presume that they have been taken out over the whole period for which records are available at each place; so that the averages may possibly not be over-reliable in certain cases (such, for example, as Somwarpet), where we gather the records have only been started in recent years. This comparative unreliability has also to be allowed for in the case of the four U.P.A.S.I. Experimental Stations where rainfall figures have only been maintained since 1921; more especially as two—1923 and 1924—of the five years during which records have been kept experienced a rainfall which was abnormally heavy and indeed greater than had been known in the previous thirty years.

The floods of last year are still fresh in our memory ; but even the extraordinary large figures in our table fail to bring out the terrific incidence of the rainfalls when the monsoon was at its height. Glancing over *The Planters' Chronicles* of August and September last year, we find, for instance that an estate in the Anamalais experienced 57·48 in. from July 14th to 18th inclusive ; and that the Manager of Rajamally in the Kanen Devan recorded a rainfall of 195·97 in. in July alone—of which 57·74 in. fell on the 15th and 16th of the month.

This year on the contrary, the Monsoon was exceptionally light ; having an index number of only 87 against one of 157 for 1924. These index numbers, which are given in the last line of the statistical table reproduced above, indicate the percentages experienced during the years 1922–25 inclusive on the average rainfall ; and afford, we trust, a readily comprehensible indication of the comparative incidence of the respective Monsoons.

It will be noticed that the Monsoon just over was the lightest experienced in the last four years.

THE HON. MR. S. J. BEST

ON

TEA IN NORTH-EAST INDIA

(Concluded from last week's issue.)

SLOW PROGRESS IN THE BEGINNING

Progress was very slow and very disappointing, till in 1847 the Directors admitted defeat and were prepared to advise the shareholders to accept any offer made for their property. This was about the lowest point reached in the fortunes of tea cultivation in Assam. At this point two men came forward and retrieved the fortunes of the Company, one a Mr. Henry Burkin Young in Calcutta and the other a Mr. Stephen Mornay who took charge in Assam, and from that day things took on a different complexion. In five years these men turned a bankrupt concern into one which it was recognized could at least pay its way. We can there leave the Assam Company, the premier Tea Company of India, only a few years later, in 1853, to be managed in Assam by Mr. George Williamson, of Williamson Magor and Company, and with Mr. Roberts of Begg Dunlop and Company as Managing Director in Calcutta.

By 1856, or 21 years after Government appointed the tea Committee, other Companies had been formed and the industry enjoyed prosperity till 1866 when speculation almost ruined it ; since then it has had varying fortunes ; cycles of prosperity being followed by cycles of intense depression bordering on ruin, when Managing Agents have been hard put to it to keep the Company's heads above water after all liquid reserves had been used up.

The last of such dark periods was in 1920 and 1921 : since then fortune has smiled on the industry and it has been able to recover and build up reserves again—a policy which, in view of the past history of the Industry, I feel sure you will agree with me is sound.

TEA IN THE CUP

Having told you something of the history of tea in north-east India, I will now, if I may, explain to you how to make tea in the teapot properly, so that you may get the very greatest satisfaction out of the article you purchase in that tin packet so carefully put up for you by the various forms of distributors like Brook Bond or Lipton.

There is one essential necessary to the making of a good cup of tea, that being that the water you pour on to the tea in the teapot should have just been brought to the boil : that is to say the water should not have been boiling on the hob for the previous 24 hours, but brought from cold to boiling point in the quickest possible time and poured on to the tea leaves immediately it has reached boiling point. Freshly boiled water will ensure you getting a brisk cup of tea rather than a flat one made with water which has been boiled up for several times. Having made your tea, give it a chance to draw, five minutes at least before you start to pour it out. Now in this country boiled milk very often spoils an otherwise excellent cup of tea and I have often wondered why the Russian way of drinking tea is not more popular in India on that account. The Russian drinks his tea without milk, but with one drop of lemon juice added to each cup. I invariably adopt this method when travelling in a train or on board a ship where milk is dangerous in the first case and nasty in the second. Years ago in 1892 when I was farming in New Zealand before coming to this country, my mate and I invariably drank our tea without milk but that was only because we did not want the trouble of milking a cow.

In Calcutta we have a hard water and this prevents us from getting the best out of the teas blended by the various tea firms in Calcutta, though as far as possible they make a blend suitable to the water here. Where I live in England, near Guildford, the water is so hard that we have our tea made with rain water and I also shave with rain water—the Company's water being as hard as a brickbat. However, one cannot use rain water in this country ; it would not be safe and we have to make the best use of what the Corporation provides us with. It may interest you to know that the Liverpool water (which I think comes from the Welsh mountains) is the softest water in England and is therefore the best for making tea. It may also interest you to know that Glasgow drinks the cheapest tea and the south of Ireland the most expensive. America thinks she drinks nothing but Orange Pekoe but she does not.

THE TEA BUSH.

I will now tell you something about the tea bush and how tea is made from the young and succulent leaves of it. The tea bush belongs to the *Camelia* family and fortunately for the industry is very hardy and can stand a great deal of rough treatment, which it certainly gets at times from the hands and brains of inexperienced tea planters, without being very much the worse for it. Most of you have been to Darjeeling and on the way up have passed tea bushes on the side of the cart road. A planter from Assam,

Duars, Cachar or Sylhet would sniff at them and probably call them apologies for tea bushes. So they are really because they are grown from the seed from bushes originally brought from China, and which give a very small yield of between 300 to 400 lbs. of tea per acre per annum. Nevertheless they give the much sought after flavour which is peculiar to the Darjeeling district especially at about 4,500 feet above sea level. This particular flavour or aroma is due partly to soil and partly to temperature. I know of nothing pleasanter than to walk past or better still into a factory in the Darjeeling district when the second flush greenfly tea is being manufactured; it reminds one of Remell's scent factory. Most of the Darjeeling district has been planted with bushes grown from China seed anything up to 80 years ago, and though the yield per acre is small the crop per acre is inexpensively produced, compared with other districts and the price obtained (by reason of its delicate flavour) comparatively high; so most of the Darjeeling gardens pay their owners handsomely. Now as regards the other tea producing districts: Assam produces a very fair crop per acre of thick liquoring teas which give the blend strength and body. The Duars, where some gardens get as much as 200 inches of rain in the year, produces a very large proportion of thin, washy stuff that helps to make up the bulk of the blend; though at times, and in the autumn in particular, the teas are very flavoured and are known as ruddy autumnals. Cachar and Sylhet are the other two big districts producing tea and they go for quantity rather than quality, and some of the tea in these districts is grown on pure peat bheils, places that are very difficult to drain on account of the floating nature of the peat. However it is possible to drain the top three or four feet of these bheils and tea grows most luxuriantly on the top 18 inches or so of dry soil for 20 to 30 years when it begins to die of what we call creeping paralysis or soil exhaustion, owing to a shallow root development. But whilst they last these peat bheils will produce anything up to 30 maunds of tea per acre compared with 6 to 12 maunds in any other class of soil.

'A HUNDRED WORRIES'

Now the tea bush does not begin to give any return to the planter till it is five years old and does not come into full bearing till it is 8 to 10 years old, during which time it has to be kept in the pink of cultivation and properly drained, roaded and the slopes terraced to prevent soil wash in the rainy season. So that by the time the bush is in full bearing and coolies, machinery and buildings provided, it has cost the planter something like Rs. 1,500 or £100 per acre. In fact in these days I should not like to undertake to do it myself for that figure. To advise him about cultivation, blights, manures, and the hundred and one other matters in connection with the scientific production of tea, the planter has the assistance of the Tocklai Scientific Department of the Indian Tea Association under the able leadership of Mr. Carpenter, the Chief Scientific Officer. The maintenance of this establishment costs the industry Rs. 2,17,000 annually which means, in addition to small grants from the Bengal and Assam Governments, an annual subscription of eight annas for every acre under tea, for which I, as Chairman of the Indian Tea Association and as one who was a tea planter for 12 years, maintain that we get real good value for our money. Well then, having got the best of scientific advice from Tocklai one would think that the planter has not much

more to hinder him from raking in profits ; but there are hundreds of other matters that are always worrying him, such as lack of coolies—epidemics, political agitators, boiler and factory inspectors, hailstorms (when he sees hundreds of maunds of tea being destroyed), floods and other things over which he has no control, including his Managing Agents in Calcutta.

THE MANUFACTURE OF TEA

Now, it might interest you, gentlemen, to follow the course of the manufacture of the tea that is brought to you in the morning along with the fact announced by your bearer that it is six o'clock. The green leaf is plucked off the bushes by women and children on piece work at so many pounds per anna ; and only the bud and the first two open leaves of each shoot are plucked. The coolies get extraordinarily expert at this game especially those born on a tea garden and who have been at it all their lives—they pluck with both hands which move so fast that your eye can hardly follow their movements. The plucked leaf is weighed at the factory twice a day and is then spread very thinly on withering racks in houses built for the purpose : here it is left for about 18 hours or until sufficient moisture has evaporated from it to make it take on a feeling like a kid glove. From there it is taken into the factory and rolled on a table with a top to it, both table and top being turned in circular motion by cranks in opposite directions (in the old days this was done by hand). This motion twists and rolls up each leaf separately and breaks the cells of the leaf and causes juice to exude and the whole becomes rather a clammy mess. The whole process of rolling takes about $1\frac{1}{2}$ hours with intervals for taking it out to cool it down. From the rolling tables the leaf is taken to the fermenting, or more properly speaking oxidizing, room, where it is spread out on a clean polished pukka floor to turn from its green colour to a bright copper colour just in the same way that an apple does when you cut into it. When after about five or four hours it reaches the right colour—something like a brand new pice, it is taken up, rolled again for $\frac{1}{4}$ hour and then put into the firing machines where hot air of a temperature varying from 180 to 220 is blown through it and all the moisture driven out of it. The green leaf contains about 75 per cent of moisture so that by the time it is manufactured you only get one maund of tea out of every four maunds of green leaf. It comes out of the firing machine in a chippy state and is then cut up and sorted and sifted to suit the demands of the buyer who makes up his blends from it.

DRY STATISTICS

Statistics are dry matters and I do not wish to weary you with them : but a few facts might be of interest to you. For instance the consumption of tea in England per annum per head of population is $8\frac{1}{2}$ lbs., America 1 lb., Canada 5 lbs., Australia $\frac{1}{2}$ lbs. and India 3 ounces. Now if every soul in India drank only 1 lb. of tea per annum there would be no Indian tea for England or any other country, every lb., i.e., 350 millions, would be consumed in India. The industry has realized for some years the potential tea drinking power of this country and has been spending $4\frac{1}{2}$ lakhs of rupees a year for the last 13 years in educating the

Indian to appreciate hot tea as a cooling drink in hot weather and a warming drink in cold weather and we have met with considerable success. For some time now we have realized that the most effective way of getting at the masses and to teach them the delights of tea as a drink is by means of the railways, of India, and very shortly there will be tea stalls, with their complement of tea boys hawking tea up and down the railway platforms, at every junction in India. Our idea is that you get a very mixed crowd travelling and one traveller sees another drinking tea and he becomes anxious and a tea drinker, for once started the habit is never given up.

In every Jute Mill or other factory round Calcutta and in fact all over India you will find well-equipped tea shops the running of which is initiated and later supervised by the servants of the Indian Tea Cess Committee. This Committee have the spending of the Cess funds which is a Cess voluntarily imposed by the industry. Now when you drink a cup of tea you might think that the tea part of it was the most expensive constituent of the beverage. This is not so. The value of the tea in a cup of tea is only one-sixth that of the sugar as taken by the average Indian that is, fairly sweet. From every lb. of tea it is possible to make 320 cups of good drinkable tea and if you take the value of that tea at 10 annas per lb. the tea in a cup of tea is only costing one-third of the pie and if you put the value of the sugar at, say, six times that, i.e., 2 pies per cup and even if you add 3 pies for the milk you still have a cup of tea that costs less than 2 pice, and it is retailed at Railway stations at 2 annas per cup and in the tea shops scattered about in Calcutta and in every other town in India at 1 anna per cup.

TEA PROPAGANDA

In addition to spending money on propaganda in India the industry has spent £40,000 a year for the last two years in advertising tea in America. Now America is a great coffee drinking country, and when they are not drinking coffee they consume large quantities of iced water and ice cream sodas and other harmless drinks. Of course there is no liquor of any sort drunk in America, prohibition is rampant. We very soon realized that we had an excellent field for pushing tea as a drink when prohibition came in, and we took it and we now employ Sir Charles Higham, of the advertising firm of C. F. Higham and Company, to boost tea drinking in America, in preference to coffee and to take the place of the intoxicating drinks which it is now impossible to obtain there. His methods certainly are very pushing judging by the newspaper extracts and for his expenditure of £40,000, he is certainly causing millions in America to see and hear all about tea. We hope to get very substantial results from this American campaign. Our propaganda work in France where we have been spending £20,000 annually for the last two years has not been so successful here the methods adopted are very similar to those employed in India. viz., demonstration work of how to prepare tea correctly and the establishment of tea shops in the larger cities. But France is a wine drinking country and it may not be realized that wine drinkers drink coffee in preference to tea and beer drinkers drink tea in preference to coffee, and whisky drinkers drink mostly whisky.

THE NILGIRI-WYNAAD PLANTERS' ASSOCIATION

(INCORPORATED)

Proceedings of a General Meeting held at Gudalur at 11 a.m. on Wednesday,
September 23, 1925

Present

R. Fowke, Esq (*Chairman*), Messrs. P. A. Naylor, J. C. Blackham, J. Aird, G. W. Fulcher, F. C. Scott, E. R. W. Walker, Clan Fraser, W. K. Baillie, R. W. M. Hay, H. Morrow (*Visitor*) and D. Mackintosh (*Honorary Secretary*).

The Minutes of the last meeting were taken as read.

Mr. R. Fowke.—Our Chairman having been elected Chairman of the Parent Association, tendered his resignation and Mr. P. A. Naylor (*Vice-Chairman*) took the Chair.

Mr. J. Aird proposed and Mr. D. Mackintosh seconded a very hearty vote of thanks to Mr. Fowke, for the good work he had done for this Association. Mr. Fowke suitably replied.

Consequent, on Mr. Fowke's resignation the following gentlemen were elected :—

Vice-Chairman.—Mr. J. Aird.

Member-in-Waiting for Coimbatore Labour Control Committee.—Mr. F. H. Farmer.

U. P. A. S. I. General Committee Member.—Mr. G. W. Fulcher.

Bangalore Delegates' Report.—Was read to the meeting and the Delegates (Messrs. R. Fowke and D. Mackintosh) thanked for same.

Roads and Communications.—This matter was fully discussed and the following resolution proposed by Mr. R. Fowke and seconded by Mr. J. C. Blackham, was unanimously carried.

'That, in view of the annual deterioration of the roads in the district, a Sub-Committee be formed comprising the members of the Nilgiri District Board, who are members of the Association, and that this Sub-Committee meet and frame a policy in regard to the roads in the district so as to enable them to bring up the whole question at a further District Board Meeting.'

Coimbatore Labour Control Committee.—Mr. R. Fowke read letter from the Anamallai Planters' Association regarding the payment of estate gang coolies; and a resolution proposed by Mr. J. Aird and seconded by Mr. J. C. Blackham approving the proposals of the Anamallai Planters' Association was unanimously passed.

Mysore Labour Control Committee.—Mr. J. Aird stated that he was of the opinion that the supply of Labour from this division was in no way increasing and the Honorary Secretary was instructed to call for figures from all the estates belonging to the Association.

D. MACKINTOSH,
Honorary Secretary.

P. A. NAYLOR,
Chairman.

U.P.A.S.I. SPORTS CLUB.

Subscriptions

Subscriptions for this year are now due.

Honorary Secretaries of all District Associations have had a supply of membership forms sent to them, on which is given the new rates of subscription.

New members are requested to apply for this form from their local Association Honorary Secretary when wishing to join the Club.

Old members need not necessarily fill in this form when paying their annual subscription, but their names, and the District to which they belong, should be written clearly.

All subscriptions should be sent direct to the Secretary, U.P.A.S.I., Post Box No. 155, Madras.

Rates.—

				Rs.
Salaries of Rs. 1,000 and over	...	...	...	25
„ Rs. 500 and under 1,000	...	...	...	15
„ under Rs. 500	...	...	...	5

Club Colours

At a recent Club Committee Meeting, the proceedings of which have not yet been published, it was decided that dark green be the Sports Club colours.

The Committee now invite the ladies of the planting community to compete for a prize for the best design of an embroidered 'Peacock' over the letters U.P.A.S.C. worked in white on dark green material.

Size of badge not to exceed 4" by 4", a blazer pocket being about 6" by 6".



U. P. A. S. C.

Designs to be sent in to the Honorary Secretary by November 15, and will be judged by the Executive Committee of the U.P.A.S.I.

It is hoped that the above reproduction of the crest used on the stationery of the Labour Department will afford prospective competitors a rough idea of the type of badge required.

WOODBRIAR ESTATE,
DEVARSHOLA P.O.,
October 2, 1925.

(Sd.) G. W. FULCHER,
Honorary Secretary,
U.P.A.S.I. Sports Club.

U.P.A.S.I. vs. Ceylon

IN THE

Madras Rugger Tournament

October 8, 1925

U. P. A. S. I.

Full Back—
Stone.
Three-quarters—
Maule, Peachey, Mackay and Laird.
Halves—
Davis (Capt.) and Stockwell.
Forwards—
Pryor, Walker (E. R.), Walker (R),
Bulteel, Nicolls, MacIntyre, Hayne
and Foote.

CEYLON

Full Back—
Laird.
Three-quarters—
Walker (E. H. S.), Davis, Blair,
and Walker (C. L. S.)
Halves—
Farquharson and Davies.
Forwards—
Adams (Capt.), Spurway, Timmis,
Newell, Blatch, Lermitte, Bell and
Montgomerie.

Referee :—M. F. M. Cleghorn.

' Their heads though bloody were unbowed ' suggests itself as the best summary of the general impression which we received of the U.P.A.S.I. Team in yesterday afternoon's game; and which we wish to record in a hurried note this Friday morning when tomorrow's issue of *The Chronicle* goes to press.

Strictly speaking of course the first, or parenthetical, epithet is inapplicable even metaphorically as the game was free from accidents; but the second—which is the keynote of the quotation and its 'beaten but undismayed' associations—is entirely germane.

We do not in our inexperience—for we have been out of touch with Rugger for several years—venture to encroach on the preserves of the Press Correspondents who in *The Daily Press* will impartially report the game and signal out the individual players particularly worthy of praise: we merely wish to record our appreciation of the extraordinarily fine

exhibition put up by the team which represented South Indian Planters in Madras Rugby Football Circles for the first time.

In justice to their sporting opponents, however, we must say that we do not think the margin of 22 points by which they established their victory was unduly large. The work of the Ceylon halves and three quarters reminded us of the best displays which we were privileged to see on First Class Rugger grounds in by gone days at Home.

At the same time we do consider that at least three, and probably four, of the Planters' Backs would—had their domicile been the 'Pearl of the Indian Ocean'—have found on their individual prowess a place in the Ceylon team. What was lacking was the collective combination which results from combined practices, but which Planters from sheer force of circumstances so often find it difficult if not impossible to procure.

The same defect, *mutatis mutandis*, was noticeable in the Forwards who were excellent in the 'tight'—where lack of combination is not over-disastrous—but weak in the 'loose' and often unable to get out the ball via their 'halves' to their 'threes'.

A chain can be no stronger than its weakest link; and we attribute the Planters' defeat to the inevitable lack of opportunities for practising liason; recording, in support of our conclusion, the way in which the Planters kept the ball in their opponents' half for an appreciable portion of the game. We noticed for example that—in the ten odd minutes interim between the first and second scores by Ceylon—three of the U. P. A. S. I. backs found openings which, but for lack of support, should have eventuated in two tries and a dropped goal.

We regret that the limitations which we have imposed upon ourselves preclude us from enumerating the protagonists of the Planters' team; but are sure that our readers will prefer the assurance, which we are so confidently able to afford, that each of its members proved himself to the hilt a worthy selection of the Committee of the Sports Club of the U.P.A.S.I.

We intended at the outset to refrain from mentioning names, but on further consideration feel we ought not to omit citing Mr. Stockwell—the Scorer, at the commencement of the second half, of the try duly converted by Mr. MacIntyre—whose effort enables the Planters to claim that at any rate they are the first defeated team in the tournament which 'broke its duck.'

Our readers we know will be glad to have the assurance—which might had time permitted been more adequately expressed—that each and every member of the U.P.A.S.I. team 'spread' himself to the utmost to see that the Planters maintained their record of being good losers in a fight.

May we sum up by the reiteration which we are sure would be heartily endorsed by their opponents—that the Planters, though out-played, were not at any stage of the game 'played out'; and have every reason—given facilities for combined practice—to be confident of making an even more praiseworthy effort next year?

CARE OF THE SOIL

BY

H. C. PINCHING, A.R.C.S.

(Continued from Page 683, issue of September 12.)

Exactly what one can do and should do must depend to a large extent upon two factors:—

(1) Lie of land.

(2) Nature of soil and subsoil.

In the first place one must be all out to prevent the drift of the soil and that can be done by one, or a combination of some of, the following:—

(1) Silt pits.

(2) Terrace planting.

(3) Contour drains.

(4) Contour weeding.

(5) Cover plants.

By all these the power of the rain to carry to lower levels the particles of soil is more or less broken. On a slightly undulating land the employment of cover plants is usually sufficient to prevent 'wash.' The question of what cover plant should be used, or is best, is often put to me by planters. My answer is always 'The best cover plant is that which (1) does the work I want it to do; (2) can be properly established and maintained at the cheapest cost.' I, personally, think it is extremely unwise to be prejudiced in favour of any one cover plant, say mimosa, vigna or centrosema. I have known cases, and undoubtedly you have too, where definite instructions have been given to the manager of an estate, often by those in authority at Home, to establish this, that or some other cover plant. After struggling hard to get the plants to grow, the manager has been rewarded with a very few weary looking plants dotted over the fields. Certain V.A.'s are inclined to push one cover plant on all the estates they visit, irrespective of the class of soil. They appear to forget that some cover plants grow well and quickly form a cover on some kinds of soil, while on other soils they will only grow with difficulty. I shall never forget the difficulty I had to establish a satisfactory covering of Centrosema on a light sandy soil. I would suggest that it is advisable to try experimentally little patches with the different cover plants available, as soon as an area is opened up, and to find out thereby which plant is best suited to the soil conditions. Another point I would like to mention is that some planters appear to scorn local can I call them indigenous plants, which often would grow luxuriantly and quickly, and to favour imported cover plants. Some planters put a lot of emphasis on the use of leguminous plants for cover plants. We all know that such plants add nitrogen to the soils and thereby raise its fertility and hence we all will agree that these plants are very desirable as cover plants. Yet the main object we have in view at the moment in our newly opened land is the conservation of soil and the prevention of 'wash.' If I can get a leguminous plant to quickly cover

the soil, and thereby I kill two birds with one stone—prevention of wash and an improved chance of increasing the fertility—all the better. Still if I cannot get the leguminous cover plant to quickly establish on my land, then I prefer to grow a non-leguminous one which will do so, rather than spend a lot of money and time coaxing the leguminous plants into existence. During the time I am coaxing on the leguminous plant, heavy 'wash' may be going on, so that what I gain eventually by the soil improving work of the leguminous plants may be more than negated by the early 'wash' which occurs. Perhaps all this is not absolutely scientific advice—but speaking from the practical point of view, it is my opinion based on my knowledge of rubber planting. Still, it is not my purpose now to discuss the relative values of different cover plants available to estates or the methods of establishing them. If further information, or rather an expression of my views—for as far as I know no results are available showing in undeniable terms the relative values of these cover plants—is desired on this matter, I shall be pleased to give it at the end of my paper.

Where land is more undulating, then, usually, a cover crop is not sufficient to prevent the drift of the surface soil to lower levels. This brings us to the questions of silt pits, terraces, contour drains and other artifices to produce a discontinuation or break in the slope of the land and which have for their purpose the checking of soil movement. As you are all aware 'silt pits' are now extremely popular on estates for the purpose of stopping 'wash.' As soon as a discussion is commenced on silt pits, the subject generally comes round to the question of 'Where do you put the excavated soil?' This is undoubtedly an important question and I should like to put my views before you on it. I have here a report of a lecture by Mr. R. M. Richards of the M.P.A.A. and in it is stated as follows:—

'Mr. Richards . . . ably disposed of the fallacy that earth excavated from contour drains should be placed on their lower side.' Of course, as I was not at the meeting at which Mr. Richards delivered his lecture I do not know exactly what he said, and, possibly some important remarks in connection with this statement, which would have considerably modified its meaning, may have been omitted in the Press report. Still, to take the statement as it stands, in my opinion, it is far too sweeping and dogmatic. In my opinion, circumstances alter cases and we want to know all particulars of the lie of land, nature of the soil and, what is most important, the object of the silt pitting, before we are in a position to judge fairly. Now to some people, silt pitting is merely—well, silt pitting—that is digging holes in the ground, because it is the apparently fashionable thing to do. No distinction is made, and I want you to take special notice of this, between silt pitting in young rubber and in old rubber. In my opinion this is most important for the very object of the work differs in each case. We are all agreed that the main object of silt pitting in newly opened land, or shall we say, young rubber, is to stop wash, but surely that is not the reason for silt pitting in old rubber where the surface soil is already lost and gone years ago. I don't want to dilate on this old rubber question for the moment but will deal with that when we consider the areas already many years under Hevea. Considering only newly opened land, then, I would suggest, that, as far as possible (and there is much in that proviso), it is desirable to bank up the soil on the top of the pit. I am out to break the force of the water and these upper bunds will give that result.

Certainly some of the soil from the 'bund' will fall back into the pit, but if I can quickly establish a cover plant on the bunds to strengthen them, the loss will be little and I can clean them out eventually. I can hear some planters saying, 'Oh yes, that is very nice indeed, but what about my loose sandy soil with which I have to deal?' It is for such cases I took great care to put in the proviso 'as far as possible.' We all know that on some soils, if we dug silt pits and banked the earth on the upper side, the pits would be filled after a day or so and that before we could anything like establish a cover crop on the bunds. In such cases, I am afraid, nothing remains but to put the soil on the lower side and get the area covered with a cover plant as quickly as possible. After all, a whole loaf (that is to say the stopping of all downward movement of soil) is nice, but a half loaf is better than none when the whole loaf is unobtainable. I would like to emphasize the use of *both* silt pits and cover crops on young areas. The use of silt pits alone is expensive if one is really going to make them stop wash. Repeated cleaning out or remaking may cost up to \$10 per annum and even then the drift of soil is not prevented.

Contour drains come under a similar category as silt pits and so call for no special discussion. A passing note, I would like to make, with reference to 'Terrace planting,' in which properly laid out terraces are cut out of the side of the hill before planting is carried out and the young trees planted along those terraces. I have an objection to this procedure on the score that one thereby removes the surface soil carefully and places the plants on subsoil.

With reference to steeply inclined land I consider that a system of silt pits and low creeping cover plant are advisable at the outset of planting and that eventually *Tephrosia candida* or some similar shrubby cover plant should be planted in contour and that from this, by cutting down the plants periodically and placing the cuttings behind the plants, to build up a system of terraces. Really, of course, none of us are keen on planting such steep land but often the planter has no choice in the matter and merely has to make the best of it. Without saying much for it on the score of effectivity, the method of contour weeding is a cheap way of building up contour terraces.

We have now dealt more or less briefly with the maintenance of the natural fertility of our newly opened land and we must now pass to the second part of our programme, i.e., the raising of the natural fertility level of the soil at our disposal. In much of the land which has been opened up with *Hevea* in Malaya it would seem, to judge from results, that the natural fertility of the soil is sufficient to secure a good growth of *Hevea brasiliensis* and that steps to effect any improvement in this fertility are not particularly called for. Still, we will all agree in hoping that an improvement in soil conditions would result in an improved growth, an increased girth and increased yield from our trees.

The principal step we can take in improving the soil conditions and thereby to raise its fertility is by improving its physical condition. This improvement in the physical condition of the soil can be secured by :—

(1) Cultivation.

(2) Drainage.

(3) Cover plants.

The physical condition of the soil is as important a factor in deciding the plant growing powers of a soil as the chemical composition (i.e. the presence of actual plant foods) of that soil. It is possible to have a soil extremely rich in plant food, in which it is impossible to grow any plant owing to the unsuitability of the physical condition of that soil.

Let us briefly consider the chief means we have of improving the physical condition of our soil, viz., cultivation. There is no need for me to tell you that the object of cultivation is to get the soil into a good 'tilth' or texture, i.e., to get it to assume a nice crumbly condition. Experience has shown that such a condition of the soil is best suited to the growth of plants. One of the most dominating substances in the soil, and one which confers its own properties to a considerable extent upon the soil is the clay. Clay can exist in two states, a sticky and a crumbly state. Any soil which contains more than about 10 per cent of clay may thus appear in two very different guises—either in a nice crumbly condition with a fine tilth or in a sticky condition, after a spell of wet weather, which dries into hard clods in dry weather. The first object of the cultivation is therefore that the clay in the soil shall be maintained in the crumbly condition.

The cultivation of the soil under certain climatic conditions (by which the soil 'weathers') causes the surface of the soil to be raised. In one experiment the mean level of the soil was raised three inches as a result of cultivation. This raising of the surface by cultivation means that there are more spaces between the particles forming the soil, and, as you are aware, the amount of pore spaces in a soil determines the amount of air and water contained in that soil. This increased porosity of the soil due to cultivation may be, in the case of certain soils which are naturally porous, to such an extent as to be detrimental. This is then overcome by rolling until the desired compactness of the particles is obtained. In the tropics, however, the weathering of the soil, resulting in increased porosity, which is the outcome of the temperature and climatic changes, is not so great as at Home and hence there is very little risk of excessive porosity resulting from cultivation.

Usually money is not, or has not been, available for the carrying out of any extensive cultivation scheme on new areas planted or to be planted with Hevea. And, further, the undulating nature of many estates makes such work risky on the score of encouraging 'wash.' Still, there are flat areas, I know of, which have been continuously lightly cultivated for four or five years after planting up, with tractor and plough or harrow (avenue planting) with good results. Again, with cultivation, as with many other of the methods we adopt on rubber estates, we have to take other factors into consideration. I have in mind at this moment an estate I visited where there was an area in which the depth of surface soil varied from 6 ins. to 1 foot and this was underlain by a stratum of hard rock. Here a yearly changcolling had been carried out for some years. What were the results? The trees had only these few inches of soil in which to push their roots and every year these roots were well chopped up. With reference to cultivation one often hears the remark that cultivation makes the roots go lower into the soil. That result is often obtained from cultivation provided that the lower levels are suitable as a habitation for the roots or that the roots can penetrate such layers. Several areas under Hevea exist in this country where the roots are restricted to the top 6 inches and they refuse to penetrate any lower on account of its un-

congenial nature. In such cases, as years go on the growth of the trees gets less and less and the trees gradually look poorer and poorer, though for the first few years they may have made quite a rapid and good growth.

Thus I would emphasize to you that one man's meat may be another man's poison and that though cultivation in general may be an excellent thing, in certain soils, with a permanent crop such as Hevea, it may be harmful. One must take all factors into consideration.

A passing word on drainage. As the word indicates, drainage means that water is removed from the soil, but to the planter that is not all. As the water is drained out, the air is drawn in and the aeration of the soil as a sequence to the removal of surplus and unrequired water from the soil is a great boon, for the condition of the soil is thereby improved. I have already dealt with the micro-organisms in the soil and you will remember that I stated that these micro-organisms need a sufficient supply of air (that is oxygen) for carrying out their activities. Increase their supply of air and you increase their activities.

Before finishing the subject of drainage I would like to mention the use of 'scupper' drains on heavy clayey soils. These drains, about a changcol deep and a changcol wide, have a great power of improving the top layers of the soil. They do not take the place of the ordinary deep 'drainage' drains, but in low lying places one often finds that even with efficient drainage, i.e., the drains are capable of removing surface water during rains, yet the surface of the soil remains slimey and sticky for days after the rains have finished. These surface drains have been used with benefit on several estates that I know and I feel sure that the non-continuance of the sticky nature of the surface layers, must tend towards an increased aeration and soil improvement of the top layers. In connection with drainage, especially on lands where the subsoil is a heavy clay, I would like to make a passing reference to the matter of the placing of the excavated soil in making drains. I have seen cases where the soil from the drains has been banked up in such a way as to make a basin of the land so that the water stands on the drained patch for days after the rain has ceased and it can only disappear either via the soil, through which on account of the heavy nature, it percolates but slowly, or by evaporation. I would suggest that the placing of the soil in drain making should be done in such a manner as not to form these 'basins'

I have already said something about cover plants while discussing the question of the maintenance of the natural fertility of the soil. Now we want to look at them for a moment as agents for improving that natural fertility. As I have already stated, leguminous plants, such as *Centrosema*, *Vigna*, *Mimosa* and the like, add nitrogen to the soil. On their roots are little nodules in which bacteria live. These bacteria have the power of withdrawing and storing up the nitrogen from the air in the pores of the soil. This nitrogen goes into the construction of the plant and, when the plant decays, finds its way into the soil. It is for this reason that one prefers to use a leguminous plant for a cover plant. At the same time, however, one must remember that the value of a cover plant is not confined solely to the power of adding nitrogen to the soil. Thus, in what is known as 'green manuring,' though it is customary to use leguminous plants, the essential feature is the addition of organic matter to the soil. On this score non-leguminous plants are equally valuable with leguminous. This

vegetable matter mixes with the soil and not only adds actual plant food to the soil but it also improves the physical condition of that soil. Amongst other things this additional humus improves the texture or tilth of the soil and confers upon it greater power for retaining moisture. There is one point in connection with cover plants and green manures which needs emphasis. It is often apparently assumed by planters that the mere planting of the leguminous cover plant effects the manurial benefits of those plants to the soil. It is only when the plants are dead and their remains buried and mixed with the soil that the full manurial benefits are received. Certainly, the living plants do confer some benefits to the soil. Their roots tend to open up and aerate the soil. As you are possibly aware air is a bad conductor of heat and thus where the surface soil is in a state of good tilth, i.e., where there are plenty of air spaces or pores between the particles then it delays the heating action of the sun's rays from affecting the lower levels of the soil. Thus the opening up effect of the roots of the cover plants tend to keep the soil cool. Similarly the shading of the surface of the soil by the leaves of the cover plant has a similar effect. You will remember in connection with this heat factor the activity of the micro-organisms in the soil.

In connection with cover plants there are some erroneous ideas current with reference to their effect upon the water content of the soil and the rate of loss of that water. It has been thought by some that since the cover plant shades the soil from the direct rays of the sun that the loss of water from the soil by evaporation is thereby diminished. This is highly probable, but one must also take into consideration the loss of water from the soil by the process of transpiration by the leaves of the plants. Experiments have shown that the water lost on account of the transpiration by the leaves is more than that saved in the soil on account of the shading action of the weeds and hence the net result of the growing cover plant to the soil is to reduce its water content. Keiller in Rutherford's *Planter's Note Book* gives some very interesting figures in connection with this point. He states:—

'It is not infrequently stated that growing grass and weeds prevent loss of soil moisture by forming a mulch to shade the surface. This is not the case. A grass grown soil loses moisture more rapidly than a clean weeded cultivated soil, the loss by transpiration of the growing grass more than exceeding the gain through any shading of the surface. In the following table are given some figures of soil moisture at different depths in a clean weeded and grass grown plot respectively. The two plots adjoined one another and the points of sampling were less than twenty feet apart. No rain had fallen for twenty-seven days previous to sampling.

	Cultivated.	Grass grown.
Moisture in surface inch	·98%	1·81%
„ 6" below surface	8·58%	5·57%
„ 12" „ „	9·74%	6·78%
„ 24" „ „	9·91%	6·42%

Dead grass lying upon the surface is an effective mulch, but growing grass is not.

Usually, however, for Malayan soils which experience a fairly continuous rainfall throughout the year this matter is not of very great importance. In countries which experience regular long periods of drought it has, however, to be considered.

With reference to the maintenance of the moist condition of the soil I would like to refer, in passing, to the criticism which was levelled at me some time ago in a letter in the *Planter* and which stated that the leaving of jungle timber in new clearings resulted in an improvement in the growth of the young trees, as compared with young trees growing on areas from which all jungle timber had been removed. If such an improvement does occur, I would suggest that it is due to the fact that the jungle timber helps to maintain the soil in a moister and cooler condition.

With reference to cultivation I find that I have omitted one important point, which, however, fits well in here with our thoughts upon the maintenance of the moist condition of the soil. As you are aware water can be present in the soil in two types: (1) Free water which obeys the laws of gravitation and percolates through the soil to lower levels; (2) Water kept around the particles by surface tension. This latter water which is a thin film around the particles can only be got rid of by evaporation. When the soil is air-dried there still remains a certain amount of moisture which is known as 'Hygroscopic moisture.' We can thus arrange our soil in layers as follows:—

- (1) Hygroscopic water and air.
- (2) Hygroscopic water, surface water and air.
- (3) Hygroscopic water, surface water, percolate water and air.
- (4) Hygroscopic water, surface water, percolate water, no air.

When an exposed surface of soil is left untouched for some time so that it receives the heat of the sun's rays, the particles of the soil appear to arrange themselves so that continuous channels are formed from layer 2 to layer 1 and the surface water on the particles of layer 2 thereby becomes evaporated and lost. Similarly light showers which fall during a long spell of dry weather may do more harm than good by penetrating the surface soil as deep as layer 2 and thereby joining layers 1 and 2 so that the surface water from the particles in layer 2 is lost by evaporation. The power to hold water depends upon the nature of the soil. Soils rich in organic matter (humus) have a greater power for holding surface water than sandy soils. Further such soils have a power to raise water from lower depths, so that they can draw upon the reserves existing at lower levels. We have all seen on our estates that sand has very little power for raising water from lower levels for often one can see sandy patches dry and incapable of growing plants where the water level is but a few inches under the surface.

It will now be appreciated how the cultivation of the soil prevents the loss of moisture. The continuous channels from layer 1 to layer 2 are interrupted and therefore evaporation of the water in layer 2 prevented. In a fertile soil which is repeatedly turned over during a spell of very dry weather the moisture content is maintained sufficient for the plants, as any loss by evaporation is made up by the soil's power of drawing up water

from lower levels. The following table shows the effect of cultivation upon the moisture content of the soil.

	Cultivated Soil.	Road.
Moisture in surface inch	1.10%	4.92%
„ 6" below surface	10.65%	11.71%
„ 12" „ „	13.20%	10.96%
„ 24" „ „	13.37%	10.24%

Thus we see that a fine layer of soil on the surface effectually shields the rest of the soil from the sun's heat and keeps the moisture safe from loss. The constant use of the hoe in the garden reduces considerably the need for artificial watering and many a gardener will declare that the hoe is the best watering-can. In countries which experience particularly long spells of dry weather or a very low rainfall every year, then this point gains considerably in importance. Here disk harrows are put through the soil as soon as a shower of rain has fallen and before the soil has had time to dry up again. This is the fundamental idea in the practice known as 'Dry Farming.'

The last point which I have to mention under the subject of means of improving our virgin soil is the use of manures. I regret to say that I have no information to give you on this matter. When estates can get 600 lbs. of rubber per acre without manuring I am afraid it will take some very conclusive proofs, showing the advantages to be obtained from manuring before rubber companies are likely to adopt such a procedure. Still it would be extremely interesting to try this experimentally to see what could be expected from such work. Probably when the new Institute for Rubber Research gets into operation attention will be paid to such problems.

I have now more or less completed the subject of the preservation and improvement of the fertility of our freshly opened areas. We must now consider for a brief moment the land already under Hevea for many years. I know that many of you will think that this is a far more important matter than the care of newly opened lands since there is not much land now being opened up for rubber and there are many acres of land under old rubber which are a source of anxiety to those under whose charge they are. Still I believe in getting down to first principles and much that we have discussed in the earlier part of this paper will help us in dealing with, and understanding how to deal with our old areas.

Through the action of the sun, the results of the 'wash' due to the torrential rains, ably assisted by the rigid clean weeding programmes which have been carried out in the past, many old estates are now left with an unfertile hard subsoil upon which the trees have to exist. In some cases cultivation, previous to the planting of the rubber, such as tapioca, pine-apples and gambier, left the soil in a poor condition before the rubber was planted. It is not only what these crops took out of the soil, but the repeated changcollings loosened the soil and assisted 'wash.' Further, leaving bare the soil after cultivation accelerated the change of the fixed nitrogen which occurred in the soil, into soluble nitrates and these were

quickly leached out of the soil by the rain water. Thus many estates started operations on an impoverished soil and subsequent treatment of that soil merely made matters worse. Areas such as these are common in Malaya. The growth of the trees is practically at a standstill—their root systems have reached practically the end of their possible development. The cessation of root growth is reflected in the poor crown development with the characteristic 'stag-horn' leafless branch formation and there is practically a standstill in bark renewal. What can we do in such cases to improve the growth of the trees? The treatment of the trees, themselves, is useless. The cutting off the dead branches will not give an improved crown development—the scraping of the renewing bark and painting the scraped surfaces with cow dung mixtures will not improve the bark renewal. A certain V.A. who was trying this bark scraping stunt replied to me when I queried the utility of his efforts, 'But I must do something to improve matters!' Well, gentlemen, the only chance you have to get that improvement in crown development, in bark renewal and in general condition of the tree is to improve the soil conditions. To what extent an improvement in soil conditions can produce such improvements in the trees must depend upon the state of the trees. It would seem that in some cases trees have got into such a 'rut' that it is nearly impossible to coax them to give a response to any improvement in soil conditions. In such cases it would seem wiser from a financial standpoint to cut one's losses and write 'finished' against the area. The upkeep of such an area will be practically nil; there will be no fear of the land becoming over-ridden with weeds and all that is necessary is to keep an eye on lallang. If rubber continues to make such upward strides in market price as it has in the last month such an area might pay to tap.

Still, viewing the matter generally, on what lines shall we work to improve soil conditions? The three ways open to us are:—

- (1) To increase the water supply to the trees.
- (2) To improve the physical condition of the soil.
- (3) To replace or re-stock the soil with plant food.

All these points are necessarily closely connected. Let us take them one by one.

(1) As we have already stated, on many of our older hilly areas under Hevea, our surface soil has been removed by 'wash' and we are left now with an unfertile subsoil which is nearly impervious to water. The major portion of the rain which falls upon this 'subsoil' runs over the surface and but a small portion finds its way into the soil and becomes usable by the trees. To force the water to pass through the soil instead of over the surface we construct traps on the hillsides to prevent the water running unhindered and uninterrupted over the surface of the land. These traps can take the form of silt pits, contour drains and the like.

(To be concluded next week)

BANGALORE—CENTRAL HOTEL, 'The Best in the Station.'

EXPORTS OF TEA, COFFEE & RUBBER FROM SOUTH INDIAN PORTS DURING AUGUST, 1925

From	To ports in India	Ceylon	United Kingdom	Europe (excluding United Kingdom)	Asia (excluding India and Ceylon)	Africa	America	Australia
<i>Tea—</i>								
Madras	100	30,123	146,890	500	300	...	...	...
Calicut	18,798	6,255	...	...	...	...	5,250	...
Cochin	4,884	21,299	538,975	...	...	600	...	...
Tuticorin	...	192,774	...	...	...	...	...	...
Alleppey	...	7,427	...	...	...	...	300	...
Total	23,782	257,878	685,865	500	300	600	5,550	...
Previously	141,947	1,368,053	13,317,167	1,055,299	3,439	1,920	18,960	...
Total lbs. since 1-1-25.	165,729	1,625,931	14,003,032	1,055,799	3,739	2,520	24,510	...
<i>Coffee—</i>								
Madras	483	...	...	...	7	...	...	...
Calicut	...	...	...	...	375	...	...	...
Bombay	...	...	...	...	156	...	...	...
Total	483	...	...	...	538	...	...	...
Previously	15,041	34	110,249	82,864	27,995	1	503	7,391
Total cwts. since 1-1-25.	15,524	34	110,249	82,864	28,533	1	503	7,391
<i>Rubber—</i>								
Madras	...	...	41,300	...	...	...	...	...
Calicut	...	32,965	...	...	...	...	...	...
Cochin	...	186,176	159,529	2,140	...	...	143,470	...
Tuticorin	...	116,574	18,795	...	...	...	...	...
Alleppey	358	149,776	...	...	...	...	...	...
Total	358	485,491	219,624	2,140	...	...	143,470	...
Previously	1,684	3,131,201	2,900,618	101,833	753	12,244	961,641	...
Total lbs. since 1-1-25	2,042	3,616,692	3,120,242	103,993	753	12,244	1,105,111	...

COMMERCIAL AND METEOROLOGICAL

I. The Rupee Exchange for the week ending October 3rd, 1925

Bank Selling Demand Draft on London

28th	29th	30th	1st	2nd	3rd
18 1/8d.	18 5/32d.	18 5/32d.	Holiday	18 5/32d.	18 5/32d.

II. Summary of latest Market Reports and Prices to hand :—

(a) Some of the higher London Prices—

Highest prices realized on the London Market			Average prices obtained for tea			
Mark	Pkgs.	Price	District	Week ending September 12, 1925	January 1 to September 12, 1925	January 1 to September 12, 1924
(1) TEA (WEEK ENDING SEPTEMBER 12)		s. d.		s. d.	s. d.	s. d.
(a) Annamallais—						
Karakundru ...	92	1 1½	N. India.	1 3'23	1 4'85	1 5'98
			S. India.	**1 0'83	††1 5'50	††1 6'16
(b) Central Travancore			Ceylon...	1 6'51	1 7'41	1 7'90
Carady Goody ...	146	1 0½	Java ...	0 10 55	1 0'63	1 2'68
Saviramullay ...	163	0 11½	Sumatra.	No sale	1 4'15	1 4'93
(c) Kanan Devans—			Nyassa-land.	No sale	1 1'08	1 4'26
Yellapatty ...	245	1 3½				
Nettigudi ...	74	1 2½				
Chokanad ...	124	1 2				
(d) Nilgiris—						
Nonsuch ...	120	0 11				
			Total	*1 3'91	†1 5'35	†1 6'30

** Based on 3,328 packages.

†† " " 129,813 "

†† " " 98,909 "

* Based on 71,093 packages.

† " " 2,110,186 "

" " 1,991,394 "

(b) *Precis of reports on London Markets received on October 5 and covering the week ending September 12:—*

(1) *Tea.*—We have again to record a small falling off in the average price obtained for South Indian Tea; and although the reduction in the week under review as compared with the previous week is only 0·09d., the fact remains that the average for every other country showed an advance. The finest, medium, and even good common sorts were all rather dearer; which indicates that the bulk of the offerings from South India were of the commonest kind.

(2) *Rubber.*—Price fluctuated considerably during the week under review, and the depreciation of about 3½d. per pound which occurred at the beginning of the week caused a reaction which led to increased demand and a resultant recovery of about 2d. per pound. The closing quotations were 3/3d., 2/11½d., and 2/9d. respectively for spot and for deliveries in October–December and January–March.

(3) *Coffee.*—No East Indian Coffee was offered in auction and the market generally is quiet; proposals for forward sales failing to materialize owing to the unbridgeable discrepancy between the Buyers' and Sellers' idea of price.

III. Weekly Rainfall Statement

From April 1, 1925, up to and including Saturday, October 3, 1925

Stations are arranged in order approximately south to north and those not in planting districts are shown in small capitals.

Stations	W.	P.	Total	Stations	W.	P.	Total
1. Kalthuritty.	6·33	64·57	70·90	17. Coonoor ...	1·33	19·32	20·65
2. Tenmalai ...	4·19	66·34	70·53	18. Kotagiri ...	0·72	25·23	25·95
3. Mundakayam.	5·07	120·52	125·59	19. Ootacamund ...	1·97	29·55	31·52
4. Peermade...	5·79	137·73	143·52	20. Yercaud ...	0·35	32·34	32·69
5. V'periyar ...	1·95	56·85	58·80	21. Devala ...	1·27	112·58	113·85
6. Kalaar ...	3·83	183·05	186·88	22. Gudalur ...	N.R.	62·76	N.R.
7. Chittuvurrai	2·34	24·86	27·20	23. CALICUT ...	1·64	108·44	110·08
8. BODI'KANUR	0·49	6·63	7·12	24. Kuttiyadi ...	2·93	146·26	149·19
9. COCHIN ...	2·64	79·09	81·73	25. Vayittiri ...	N.R.	N.R.	N.R.
10. Mooply ...	1·17	84·41	85·58	26. Manantodi...	1·01	98·93	99·94
11. Pachaimalai	5·67	101·34	107·01	27. Billigiris ...	1·52	48·00	49·52
12. Mudis ...	6·65	159·96	166·61	28. Sidapur ...	2·74	56·88	59·62
13. POLLACHI.	Nil.	16·94	16·94	29. Somwarpett ...	1·53	69·21	70·74
14. Manjeri ...	4·69	94·11	98·80	30. Ballupete ...	0·73	66·17	66·90
15. Nilambur ...	2·83	81·61	84·44	31. MANGALORE.	0·55	124·86	125·41
16. Naduvattam	0·90	71·31	72·41	32. MADRAS ...	Nil.	15·17	15·17

W = During the week

P = Previously.

N.R. = No return.

The Planters' Chronicle

Recognized as the Official Organ of the U. P. A. S. I. (Incorporated)

Managing Editor's Postal Address : POST BOX 155, MADRAS

Do. do. Registered Telegraphic Address : UPASI, Madras

VOL. XX, No. 42] SAT., OCTOBER 17, 1925 [PRICE, AS. 8

CONTENTS

	PAGE		PAGE
Editorial Notes ...	767	Proceedings of U.P.A.S.I. Sports Club Committee Meeting ...	777
E o t h e n's Monthly Market Notes ...	769	Letter to the Editor ...	778
Hookworm Disease by Dr. W. H. Thyne...	772	District Notes—South Travancore ...	779
Care of the Soil ...	775	Commercial and Meteorological ...	781

EDITORIAL NOTES

The letter from an esteemed Correspondent, which we publish in this issue, supplements in an admirable manner the hurried account which we wrote last week of the Rugger Match between the U.P.A.S.I. and Ceylon on October 8, 1925. As we then pointed out we designedly refrained from mentioning any names, save those of the 2 Players who were responsible for the Planters' 5 points.

*The Madras
Rugger
Tournament,
1925*

We considered criticisms of individual Players, by one long out of touch with Rugger, might be thought invidious; and that our Readers would prefer a general tribute to the magnificent display given by the team as a whole. Mr. Bambridge in his speech at the Gymkhana Club after the Finals on Saturday the 10th paid an eloquent tribute to the excellence of

that display: and *The Hindu* of the 13th also commented thereon in the following words:—

'With the end of the Madras Rugby Tournament a few comments would not, perhaps, be ill advised. To the congratulations at its success let us add our thanks to the Secretary, and also to the teams which took part; and of these we liked the Planters most, for this scratch team put up an admirable and plucky exhibition, and travelled miles and miles to play one game. Perhaps another year a practice or two in the hills will put the cup nearer within their deserving reach.'

A leader in the *London Times*, received by this week's mail, discusses the relative merits of the Steam Engine and the Oil Engine for the propulsion of ships. We, as laymen open to correction, gather that the preponderance of shipping companies are favouring (cf. the notes on the Bibby line on pages 562 and 727 respectively of our issues of August the 8th and October the 3rd) the gradual incorporation of oil driven steamers in their fleet. Sir John Biles, however, is a protagonist of the steam turbine; and is now pointing with pride to the vessel presently in building on the Clyde; whose boilers will have a steam pressure twice as high as has been hitherto used at sea, and, aided by other fuel-saving devices, be able to bring steam running costs down to a lower level than is feasible even when oil is the motor power.

We are informed that a new company called the 'Estates and Agency Company, Limited, has just been formed with a paid up capital of £500,000 to take over the estates and assets of the 'Tea Estates Control Co., Ltd.' There will be no change in the London Board or in the local management. Mr. J. B. Adkins will continue to act as Managing Director of the new Company. The estates concerned in the transfer are 'Dunsinane' and 'Waragalande' in Ceylon, 'Prospect,' 'Seaforth,' 'High Forest' and 'Yemmigoondi' in India. The new Company also takes over the Managing Agency of the 'Warefall' (Anamalais) Tea Estates, Ltd., and intends taking up other Agency Work, Estate visiting and valuations in South India, confining agency work entirely to estate administration as it is not intended to act as a trading Company. The Agency Department will be under the management of Mr. J. N. Smith, lately of Messrs. Whittall & Co., Colombo, who will after 1st proximo open an office for Agency Work at 'Belmont' Coonoor.

Apart from every other consideration, it is gratifying to know that Wembley has proved a success from the point of view of Exhibitors. The Rubber Growers' Association which has extensive Exhibits in the Malaya, Ceylon and British Government Pavilions report excellent results. The principal aim of the Association was to interest the general public in manufactured rubber goods for the home. Directly, they report two hundred and ninety-four enquiries for quotations for rubber flooring and panelling, some of which were for very large spaces, and innumerable inquiries for miscellaneous rubber articles. The manufacturers moreover who supplied the rubber flooring for the exhibits and the various other rubber articles have also received a great many enquiries from people who have seen the Rubber Growers' Association's Exhibit at Wembley.

MONTHLY MARKET NOTES

BY

'EOTHEN'

TEA

The market for common teas has been extremely poor and many breaks have been sold at what must have been less than the cost of production. There is still a demand for fine teas, however, but as so much common stuff is being produced the outlook for tea companies does not look particularly bright. The tea statistical situation is not cheering. At the end of August the total stocks of tea in bond amounted to 165,035,000 lbs. or 38,586,000 lbs. more than a year ago. On June 30 last, however, the increase over last year was 44,130,000 lbs.

Russia has been taking more tea, and her imports for the first half of 1925 were approximately 12,000,000 lbs. against the total imports of 15½ millions for the whole of 1924.

The question of the advisability of restricting tea production is exercising the minds of the Indian Tea Association in Mincing Lane and the Ceylon Association in London. The Indian Tea Association has already suggested to its members that their estates should aim at bringing the total of their crop for this year down to the level of that of 1924. The Ceylon Association in London will consider the question of restriction of tea output at the meeting which will take place on September 28. It is difficult to say what can be done, as any restriction must obviously be of a voluntary nature. What will probably happen is that there will be another campaign in favour of fine plucking. It is to be hoped that this will be successful, as otherwise, the industry will undoubtedly see a repetition of the slump of 1921.

The average prices up to September 11 were as follows : —

	Current Week 1925	Current Week 1924	Jan. 1 to Date 1925	Jan. 1 to Date 1924
Northern India ...	1/3·23d.	1/9·19d.	1/4·85d.	1/5·98d.
Southern India ...	1/0·83d.	1/6·42d.	1/5·50d.	1/6·16d.
Ceylon ...	1/6·51d.	1/10·07d.	1/7·41d.	1/7·90d.
Java ...	10·55d.	1/5·36d.	1/0·63d.	1/2·68d.

A welcome improvement is shown in the tone of this week's tea auctions. At the Indian tea sale there was a strong demand yesterday and good liquoring teas were much sought after, while tippy parcels sold at good prices. At the Ceylon auction there was a remarkable improvement in quality, the low country teas sharing in the improvement and also in the advanced prices.

Although world consumption of tea is increasing, there is still scope for improvement, particularly in America where, despite Sir Charles Higham's advertising campaign, progress is slow. In that country, according to estimates given in a manual recently published by a firm of tea experts, the consumption per head rose last year from ·88 lb. to ·93 lb., but was still only about one-ninth of the consumption per head in Great Britain. The American consumption per head is now nearly as high as in pre-war years, but whereas more than 85 per cent of the tea then came

from China and Japan, over 45 per cent of it now comes from India, Ceylon and the Dutch East Indies.

RUBBER

The market has fluctuated considerably during the past month, though the daily rise or fall has rarely exceeded $1\frac{1}{2}$ per lb. Speculators in the commodity have had and are having the time of their lives. The forward positions have been the favourite happy hunting-ground of the speculators, October-December being the favourite, but this is now giving way to January-March as a gambling medium. Despite stories of continued activity in American factories, and satisfactory automobile production, there has not been much actual buying by the trade. The market has been very jumpy, and bear attacks have frequently been successful, especially upon the forward positions. The inherent strength of the market, however, has made itself felt, and the disparity between the forward price and the spot price has now narrowed. January/March, which dropped at one time to $2/3d.$ has been as high as $2/11\frac{1}{2}d.$ afterwards falling back again slightly.

The announcement by Mr. Harvey Firestone that arrangements have been practically completed for leasing a million acres of rubber land in Liberia had no effect upon the rubber market in this country. Mincing Lane, and writers on rubber generally are disposed rather to scoff at this Liberian venture, taking the view that even if the planting up of a million acres becomes an accomplished fact, it will not be until about the end of 1946 before the market will be seriously affected. It is true that, if the planting is ever completed, as every rubber man knows, approximately seven years will have to elapse before the world's production of rubber will be appreciably augmented. At the same time sober-minded people on this side who have a better knowledge of American mentality than some of the frothy scribes who write every week with only one object, namely to 'bull' the market, are disinclined to dismiss this gigantic project as being merely a piece of bluff on the part of Mr. Firestone. After all, it must be remembered that the scheme has the approval of Mr. Hoover, United States Secretary for Commerce, and that a special loan of five million dollars is being floated in the United States on behalf of the Liberian Government as part consideration for the rubber land concessions. It is perfectly true that the previous attempts to grow rubber in Liberia were singularly unsuccessful. It is also true that these attempts were made many years ago, and that conditions in West Africa have now changed to a very large extent. Moreover, Mr. Firestone's agents have for several months past been thoroughly investigating those parts of the world where rubber may be grown, and we may depend upon it that Liberia was not chosen until mature consideration had been given to the scheme in all its bearings. Some American newspapers take the view that the labour question will solve itself to a large extent, owing to the interest which the Negro population of America will take in the exploitation of Liberia, as this wealthy African Republic has long attracted them.

The American Department of Commerce in a report indicates that the Philippines, if planted up in rubber, can be looked to for 70,000 tons yearly in time. It is stated in a reputable American journal that a bill is shortly to be brought forward in the Philippine Legislature authorizing the leasing of 20,000 acres for 25 years with the privilege of renewal to corporations whose capital is American, or Philippine, or both, for planting in rubber.

The London rubber stocks show the moderate increase on the week of 668 tons. The following are the details :—Landed in London last week, 1,783 tons ; delivered, 1,116 tons ; stock, 5,699 tons, against 48,033 tons a year ago and 51,541 tons in 1923. The non-arrival of one solitary steamer with rubber on board for New York has sharply improved the American market, showing how short they still must be on that side. ' He who will not when he may, when he will he shall have nay.'

COFFEE

August was an active month so far as Santos coffee was concerned, purchases for and shipments to the United States having been of abnormal value. For the first two months of this season shipments from Santos to U.S.A. were 1,227,000 bags as compared with 740,000 bags last year. Prices and Brazilian Exchange both derived advantage. Shippers are, however, again beginning to complain of a lack of business which is attributed to the rise in price and have the fear that America is now in a better position, than for some time past, to resist the advance. The American Department of Commerce recently issued a statement pointing out that Brazilian coffee increased 55 per cent in price during the fiscal year ended June 30, and all coffee increased 44½ per cent. As a result there was a decrease in consumption of 150,000,000 pounds, or 8 per cent, while the American consumer nevertheless had to pay \$82,300,000 more for his coffee. The Department calls the scheme that produced this price 'valorization', meaning purchases at a fixed price, whereas it was almost wholly restriction of exports. Nevertheless the effect of the statement is the same. With larger world crops available it is difficult to see how these prices can be indefinitely maintained.

There appears to be some talk of limiting Rio receipts to 13,000 bags per diem, at which rate the Rio crop, estimated at 4 million bags, would be equally spread throughout the rest of the season. The present Santos crop has recently been officially estimated at 8,769,000 bags which is somewhat below previous generally accepted forecasts.

The statistics just published by Messrs. Duuring and Zoon show a small addition of 23,000 bags during August to the world's visible supply which now stands at 5,237,000 bags. For the same month last year an increase of 909,000 bags occurred, but then Santos receipts were abnormally large following on a cessation in the previous July due to the revolution.

Messrs. Jas. Cook & Co., report that our spot market has been quiet during the past month though the tendency has been good. Very little fine coffee has made its appearance in catalogues but when met with higher prices have been paid ; parcels of medium quality, if in sizeable lots, have also been saleable at some advance but small lots and common descriptions are still difficult of sale.

The coffee market was barely steady in London yesterday, but slumped rather badly in New York under continued outside selling.

LONDON,
September 17, 1925.

HOOKWORM DISEASE

BY

Dr. W. H. THYNE, MEDICAL OFFICER,
MANANTODDY GROUP

Hookworm disease is due to certain species of Hookworm (*ankylosoma duodenale* and *Necator Americanus*) which live as parasites in the small intestines. The disease is characterized by a progressive anæmia with its signs and symptoms, e.g., swelling of face, hands, legs and sometimes in extreme cases the whole body—weakness, impaired development, and by various symptoms of the circulatory, digestive and nervous systems. The disease lowers the vitality of the individual infected to a very great extent rendering him more liable to other infections. The resistance of the infected individual is lowered to such a degree that if he is infected with any infectious disease he usually succumbs. A very important sign of hookworm disease is laziness. This laziness is not by any means intentional. In this connection I would quote an instance in which a cotton mill physician had treated several cases of severe hookworm disease for two years and thought himself quite expert when he diagnosed two cases in employees. About that time the manager read in a newspaper that hookworm disease was the cause of laziness, and believing that all his employees presented this one of the symptoms, he summoned the physician to examine the sixty-two boys and girls for hookworm disease. He decided, after looking at them all, that the two cases already diagnosed were all there were in the mill, and thought it unnecessary to examine the fæces of any more of them. The manager regardless of the doctor's negative diagnosis sent specimens from all of them for examination, and of the sixty-two there found fifty-six infected. Many of them were of course very mild cases, but that not a few were more pronounced is indicated by a letter from the manager four months after treatment of the fifty-six cases, in which he says:—The time-keeper had been absent nearly three months on account of sickness in his family, and on his return he found many of the children had changed so much he often had to ask the names of some of them whom he had previously known well. The working capacity of the hands has been increased at least 25 per cent, and I feel that the small fee I paid you is insignificant in comparison with our gain.

Infection.—There are two modes of infection—by mouth (which is not important as it is very rare) and through the skin. Where there are no latrines and in many places where there are latrines provided for the coolies but are not made use of the coolies deposit their fæces in the most convenient hiding places round the lines. The fæces of infected coolies contain innumerable hookworm eggs. The fæces mix with earth and are scattered by various ways round the lines. The eggs are hatched into larvæ which become very active after four or five days and are capable of infecting man. The coolies who are barefooted wander about infected areas, and the hookworm larvæ adhere to the feet or other parts of the body which come in contact with infected earth. These larvæ while penetrating the skin of the infected coolie produce a rash commonly known as ground rash. Having penetrated the skin the larvæ enter the circulation and eventually find their way to the small intestines which is their natural home. The larvæ then undergo further development in which they acquire a buccal capsule. With this capsule the worm fastens itself to the mucous membrane of the small intestine and by sucking at the intes-

SPENCER & CO., LTD.

WHOLESALE AND RETAIL WINE MERCHANTS

Spencer's represent nearly all the foremost growers, distillers and brewers, and can therefore offer their clients, from stock, the widest choice of liquors in India.

CHAMPAGNES

Heidsieck 'Dry Monopole'; Moet and Chandon; Pommery and Greno; Bollinger; Giesler; etc.

PORTS

Feuerheerd's; Cockburn and Campbell's; Hatch Mansfield's; etc.

SHERRIES

Feuerheerd's; Hatch Mansfield's; etc.

WHISKIES

'King George IV' ('Top Notch' and 'Gold Label'); 'White Horse'; Dewar's 'White Label'; Sanderson's 'Vat 69'; Peter Dawson; McCallum's 'Perfection'; Greer's 'O.V.H.'; etc.

ALES AND BEERS

Beck's; St. Pauli 'Girl Brand'; Tennent's; Ross' 'Red R'; Bass' (Dog's Head Bottling); Wm. Younger's; Melbourne Bitter; Wrexham Lager; etc., etc.

Please write for full List

Consignments of one whole case or more are packed and delivered by Goods Train FREE OF CHARGE to any station in the Madras Presidency.

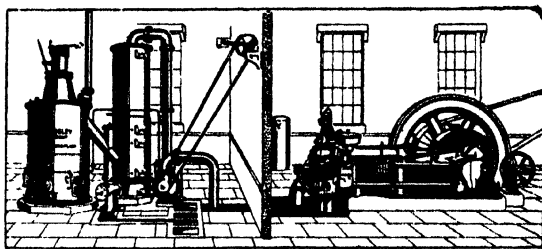
SPENCER & CO., LTD.

MADRAS AND BRANCHES

CROSSLEY

GAS ENGINES AND SUCTION GAS PLANTS POWER FROM REFUSE

The combination of a 'CROSSLEY' Gas Engine with a 'CROSSLEY' Producer Gas Plant is the most Economical method of generating power.



(Illustrating Suction Gas Engine and Wood Refuse Plant.)

The Special Features embodied in 'CROSSLEY' Engines and Plants are the results of over 57 years continual experience in the manufacture of Really High Class Internal Combustion Engines.

Over 100,000 Engines totalling over 2,000,000 Horse Power have been built and supplied

Sizes from 4 B. H. P. up to 500 B. H. P.

To use all kinds of Carbonaceous Fuels

Crossley Brothers, Ltd.

14, BROADWAY

P.O. Box 1249

MADRAS

Tel.: 'Combustion'

membrane it furnishes itself with nourishment. In the next three or four days the worm sheds its skin and grows rapidly to $\frac{3}{4}$ inch in length and from 6 to 8 weeks from the original infection the worm begins to lay eggs which are discharged in the fæces.

I won't go into the various signs and symptoms of hookworm disease. What we are more concerned with is the treatment and prevention of the spread of the disease so that we could keep the coolie constantly healthy and rid him of the laziness which is the natural outcome of hookworm disease and a little money spent on the prevention of the disease is negligible to results that would be attained.

Treatment.—To begin with I must say it is perfectly hopeless and a waste of money to carry out mass treatment of hookworm disease before measures are adopted for the prevention of the spread of the disease and mass treatment of the disease should not be started until such measures are provided.

In carrying out mass treatment the following points should receive careful attention :—(1) Safety for the coolies. (2) Simplicity of administration on a large scale. (3) Lack of unpleasantness in taking or in after-effects. (4) Effectiveness in expelling worms and (5) Cheapness. In considering the above Carbon-Tetrachloride is to be strongly recommended. The best time for carrying out mass treatment is 2 p.m., when the coolies should be brought in from the field and let off work for the remainder of the day. It is always advisable and as a matter of fact necessary to repeat the Carbon-Tetrachloride ten days later.

Prevention.—Theoretically the disease is one of the easiest to prevent. Unlike other diseases it is not carried about by flies to any extent, nor is it taken in water or milk nor by the wind to any extent. In other words it does not come to man—man goes to it. Practically it is one of the most difficult diseases to prevent or eradicate on account of its wide extent but a great deal can be done for preventing the intensity of infection. The problems for preventing involve the following elements :—

1. Stopping the danger of infection by exterminating the mature worm in order to prevent the supply of eggs.

2. Preventing the growth and existence of hookworm larvæ in places where they develop and so preventing soil infection.

1. *Extermination of the Mature Worm.*—The home of the worm is the small intestine of the human being and they cannot live when once expelled. Their extermination has therefore been discussed under treatment.

2. *Prevention of Soil Infection.*—In the prevention of soil infection some form of sanitary latrine is essential. It must be easily accessible from the lines, so that neither indolence or feebleness will lead to the use of less secure places. The latrine must be kept clean in all parts with a sweeper in charge.

The choosing a site for a latrine must be carefully considered so that there is no chance of contaminating well and other water supplies. The pattern of latrine commonly used in planting districts is the deep trench.

This trench is 10 ft. deep, 3 ft. 6 in. broad and length according to the number of seats required, each seat should be 3 ft. apart. Timber beams and planks 1 in. thick usually comprise the platform, with bamboo matting for the walls and roof. This is quite alright as a temporary measure, and will last roughly 9 months; but to adopt it as a permanent measure, is waste of money as it will require constant repair which is carried out most unsatisfactorily as the carpenters don't appreciate working over a latrine that has been in use. It would save the estates an enormous amount of money if the deep trench latrine be built *pukka*, i.e., iron rails should be used in place of the wooden beams and corrugated iron flattened out or any other form of iron sheeting in place of the wooden planks. The walls and roof to be of corrugated iron fastened on to teak uprights and rafters. This is a permanent fixture and won't require the annual repairs and at the end of 6 or 7 years when the pit is 3 ft. from the top with excreta and time for filling up with earth the material of this latrine could be moved *en masse* to a new site. The initial expenditure of a latrine of this sort will be found to be high but at the end of three years or so it will be found to be most economical. Each seat of the latrine should be 8 in. broad and 18 in. long.

Having built the latrine the most difficult task starts and that is to get the coolies to make use of them. It is the duty of the compounder who should in addition to treating the sick on the estate perform the duties of a sanitary inspector. He should spend more of his time in the lines and amongst the coolies.

Most of the coolies are extremely ignorant of the origin, nature and method of preventing disease, whilst custom and habit make it difficult to get them to adopt reforms for the promotion of health. It is the duty of the compounder to explain to the coolies daily the dangers they are exposing themselves to by not using the latrines. He should teach them to recognize dirt when they see it, to realize the dangers to health and life of insanitary surroundings and he should try and develop in the coolies what is commonly known as a 'Sanitary conscience.' The compounder will experience a great deal of passive resistance to efforts intended to improve sanitary conditions but he must not regard this as culpable, it is but the natural outcome of ignorance and he must teach them and assist in dispelling the darkness of this ignorance which renders them a constant prey to disease. He should make them understand that where they refuse to pay heed to sanitary precepts they not only poison their own water, air and food but sow broadcast the germs of communicable disease and others suffer from their folly. Spasmodic effort on the part of the compounder is of no avail and of little use, deliberate training and teaching of the coolies is necessary. Compounders should on no account consider their day's work is finished when they have finished their morning rounds but should spend most of their time in the lines and amongst the coolies.

In addition to latrine sweepers line sweepers should be engaged. These men should be made to remove all house refuse, line sweepings, and night soil from the compound and vicinity of the lines and dump same in a pit which should be provided.

These sweepers together with the latrine sweeper form part of the sanitary staff and should be under the direct orders of the compounder who in turn should be held responsible for the cleanliness and sanitary condition of the estate.

CARE OF THE SOIL

BY

H. C. PINCHING, A.R.C.S.

(Continued from page 763, issue of October 10.)

The exact form which these traps should take is, in my opinion, a somewhat minor detail. The thing, in my opinion, which is of prime importance is the efficiency of the artifice to do what I want it to do. I would suggest that exactly what form is desirable must depend upon the nature and lie of the land being dealt with and the cost of the work. Not long ago I was visiting a certain estate and I noted that the manager had cut on a somewhat slightly undulating area under oldish rubber shelves or small separate terraces to force the water into the soil. When I noted them, the manager remarked, 'Of course you do not approve of these.' When I asked why he presumed I didn't approve of them, he replied, 'I thought you would certainly prefer silt pits!' My answer to that was, 'Why should I prefer silt pits, are these artifices doing what you want them to?' The efficiency—the result—is the main thing to judge by.

The most common artifice employed on old areas for forcing rain water through the soil is the silt pit and this brings us once again to the popular question of where should I put my excavated soil. What am I out for? To catch water! Then I would suggest that this can be best effected by having the excavated soil placed at the lower side of the pit. I feel sure you must appreciate the difference in the object in silt pitting old areas where all surface soil has been lost for years and silt pitting newly opened land where I am out all the way to prevent wash. I have heard planters talk about the 'wash' staying benefits of silt pits in old worn-away areas and have had them point out with great joy a little covering of silt in the bottom of their pits. Quite a case of the well-known tobacco trade mark 'See what we save!' Still, gentlemen, I would suggest that though it is very nice to save further wash from the area, it is really a minor detail in comparison with the forcing of the water through the soil.

(2) This brings us to the second thing on our programme, viz., the improvement of the physical condition of the soil. The forcing of the water through the soil by the power of gravity will cause air to follow and this aeration of the hard exposed subsoil layer should tend to improve its physical condition and also make it more congenial to the development of micro-organisms. What I have already said about silt pits rather refers to the undulating areas but we have also flat areas to consider. We have flat areas where the soil conditions are uncongenial, where the texture of the soil is unsuitable to rubber. I saw a case of this not long ago where the Board of the company had instructed the manager to uproot the trees and replant! I naturally inquired of the manager what he was going to do to the soil before carrying out the replanting. With the present stand of trees as an object lesson as to the results of growing Hevea on the soil in question I could not see what hopes there were for a successful issue from the second planting. The reply was 'nothing!' Before such a soil was fit for replanting it wanted, in my opinion, considerable treatment. The treatment I would have suggested would have been a programme of cultivation, drainage, cover crops which wanted to be dug into the soil every year. Three years' working on the soil in this way should have done something to have converted the area into a place fit for having a second planting.

Of course such a programme as this could not be done with the trees standing and as we have to deal with old areas under Hevea we have to modify our procedure accordingly. Take the first thing I suggested, viz., 'cultivation.' Though I have done a considerable amount of cultivation by changcolling (either with changcols or forks) of old rubber I cannot say that I approve of it when considering the results of that work. In the first place one damages so many roots and this must have some effect upon the tree, secondly the damage one does to the roots opens the roots to attack by such a fungus as *Ustilina zonata* and thirdly I have never seen any marked improvement either in growth of the trees or their yields resulting from such work. I do not deny the possibility of the cultivation improving the soil, but it would seem that the other counter results more than neutralize the benefits. I saw an interesting case the other day where in a fairly flat field of oldish trees the roots of the trees were considerably exposed. Other fields of a similar age and adjoining this field did not show this root exposure. Upon inquiring of the manager I found that the field in which the roots were considerably exposed had been cultivated—the others had not. It would seem that the cultivation had permitted 'wash' to occur and so the roots were left above the surface.

In view of the above objections which I have raised against cultivation in old rubber, I would suggest that attempts at the improvement of the physical condition of the soil can only be restricted to efforts to improve the aeration by improved drainage, by silt pits and surface drains by which the water in the surface layers of the soil will move quicker. Again, with reference to the subject of silt pits in old rubber, one finds that they may eventually get filled up with leaves, silt and other debris. The question then arises as to whether it is better to dig other fresh pits or to clean out the old ones. In this I would suggest that the peculiar circumstances of the case must be considered. We all appreciate the fact that the digging of silt pits in old rubber in most cases results in a considerable cutting and severing of valuable roots and that the digging of more silt pits means more damage to the roots. Hence, except in very wide planting where the new silt pits would mean very little damage to the roots, I would suggest that it is better to clean out the old pits. But some planters will ask. 'What about the many little rootlets which one finds at the bottom of the silt pits feeding upon the debris there?' I am fully aware that the little rootlets do find their way quickly into the silt pits, but why do they do it?

Some will say that the organic matter (dead leaves, etc.) encourages their development there. I would suggest, however, that they grow there merely on account of the increased dampness present there and that to damage these rootlets is of far less consequence than the damaging of main roots. Rootlets are quickly formed by the tree at nearly any portion kept extra damp. Indeed you can get rootlets to grow on the stem—that is the method used in obtaining marcots. It is the dampness which encourages this rootlet formation not the presence of organic food supplies. Indeed you can place a piece of board on the ground for a few days near a tree and on removing the board you will see the surface of the soil full of small rootlets due to the fact that the board has kept the surface extra moist. I have heard of cases where old trees have been isolated on account of the repeated digging of silt pits around them, more or less all their lateral roots being severed six feet or so from the trunk. I cannot see how such treatment can fail to impoverish the tree and retard its growth.

(To be concluded next week)

THE U.P.A.S.I. RUGGER TEAM

(vs. Ceylon on 8th October, 1925)



Standing :—K. C. PRYOR, J. C. NICOLLS, A. E. BULTEEL; D. M. MCINTYRE; A. FOOTE; R. S. MACKAY; L. C. G. HAYNE;
E. R. W. WALKER.

Sitting :—G. S. STOCKWELL; W. P. LAIRD, E. G. F. MAULE, P. W. DAVIS (CAPT.); R. WALKER; E. A. STONE; E. R. PEACHY.

U.P.A.S.I. SPORTS CLUB

Proceedings of a Committee Meeting held at the Ootacamund Club
on Sunday, September 20, 1925.

Present

Mr. J. Stuart Hawkins (*President*). Messrs. D. Cooper and G. W. Fulcher (*Honorary Secretary*)—by invitation—Messrs. R. Fowke, P. W. Davis, J. Colthurst and E. L. Koechlin.

Club Colours.—Dark green was decided on. Ladies of the planting community to be asked for the best design of a badge, embroidered in white on dark green material, of a Peacock over the letters U.P.A.S.C.

Madras Rugger Tournament.—The U.P.A.S.I. Office to be good enough to order green vests for the team in Madras. White shorts should be worn with same.

As the members of the team will be put up in Madras, rail fares only to be met from Club funds.

Murphy Tennis Cup.—A proof sketch of the Cup from Messrs. Barton Son & Co. was much approved of. The inscription to be :—

‘ MURPHY CUP ’

Ladies Singles

Ooty Week (Second half February, 1926).—The following have kindly offered to serve on the Entertainment Sub-Committee :—

Capt. Windle, Messrs. J. Colthurst, E. L. Koechlin, A. Wilson and Miss Barber.

Messrs. Colthurst and Koechlin have offered to put on a ‘ Revue ’ at the Assembly Rooms during ‘ The Week. ’ Will members who are attending the Meet, and who would take part in the programme, please send in their names direct to Mr. J. Colthurst, Hautville, Ootacamund.

Dance Music.—The Anamallais Jazz having been so popular last year, it was hoped that we should have the pleasure of it again this coming Meet. Mr. Koechlin has also offered to raise a local Ooty jazz. Should we have the two, the Club would be saved a matter of Rs. 300 to 400 for engaging an outside band. In this case it was resolved that the travelling expenses of jazz band members should be met, irrespective of the salary rule.

Club Membership.—Owing to difficulties experienced during the last two Meets of non-members of the Club using the various Ooty Clubs, the members of which are good enough to make members of the Sports Club honorary members, it was decided that admittance to all functions during the Meet be by a general ticket. These will be obtainable from either the Honorary Secretary of the Club or Miss Barber. Members are therefore asked to make certain that their annual subscription has been paid.

Cricket.—Inter-District Cup offered by Sir Fairless Barber—Indication from districts of entries not being favourable, it was with regret decided that this competition was not possible at present. The request for more cricket was however considered, and the Committee was in favour of two elevens (A and B) being raised to play the various Clubs, who always ask

One of our local shikaries, who has spent many a night treading the rubber seeds in the hopes of shooting Mr. Boar, Mrs. Boar, and all the little Boars, has at last had his patience rewarded by shooting a fine bear not far from his bungalow. The bear's mate, filled with anger at the loss of his spouse, set up such blood curdling howls that the shikari and his somewhat portly companion, disliking the situation under the gloom of the rubber trees, beat a strategic retreat to the bungalow verandah. I understand from an experienced hunter that the proper method on these occasions is to take up a position in the open and wait for the onslaught of the remaining bear armed only with a hunting knife. When the animal raises itself to its full height the quietus is given by plunging the knife between the midriff and the catscollops. It is merely a matter of who gets in the first blow!

A correspondent sends me the following :—

An enjoyable Club Meet was held at Quilon during the Malayalee festival of Onam—the following being the results :—

Tennis—

Men's Handicap Singles :

Final, G. McPherson— 30 beat D. L. Wilson + 15·3 : 3-6, 6-3, 6-1.

Men's Handicap Doubles .

Final, A. D. Hickie and A. H. Feltham—30—3 beat L. A. Lampard and E. V. Le Parisot ; 6-2, 6-3 ,

Mixed Doubles, American :

Winners—Miss Montgomery and G. McPherson

Bridge—

Winners, Mrs. Lodge and A. P. D. Lodge.

Snooker—

Final, L. H. Jacob beat J. B. Cook.

Hockey—

Quilon beat Outstation by six goals to nil. The Quilon combination was better and their forwards more speedy and quicker at shooting.

A dance was held on the Saturday evening.

Mrs. Henderson (Senior) kindly distributed the prizes.

F. G. M.

October 14, 1925.

COMMERCIAL AND METEOROLOGICAL

I. The Rupee Exchange for the week ending October 10th, 1925
Bank Selling Demand Draft on London

5th	6th	7th	8th	9th	10th
18 5/32d.	18 5/32d	18 5/32d.	18 5/32d.	18 5/32d.	18 5/32d.

II. Summary of latest Market Reports and Prices to hand :—

(a) Some of the higher London Prices—

Highest prices realized on the London Market			Average prices obtained for tea					
Mark	Pkgs.	Price	District	Week ending September 12, 1925	January 1 to September 12, 1925	January 1 to September 12, 1924		
		s d		s d.	s d	s d		
(1) TEA (WEEK ENDING SEPTEMBER 12)								
(a) Annamallais—								
Karakundru	92	1 1½	N. India	1 3 23	1 4 85	1 5 08		
			S. India.	**1 0 83	†1 5 50	†1 6 16		
(b) Central Travancore			Ceylon...	1 6 51	1 7 41	1 7 90		
Carady Goody	.. 146	1 0½	Java ...	0 10 55	1 0 63	1 2 68		
Saviramullay	.. 163	0 11½	Somatra.	No sale	1 4 15	1 4 93		
(c) Kanan Devans—			Nyassa-land.	No sale	1 1 08	1 4 26		
Yellapatty	245	1 3½						
Nettigudi	74	1 2½						
Chokanad	... 124	1 2						
(d) Nilgiris—								
Nonsuch	... 120	0 11						
			Total	*1 3 91	†1 5 35	†1 6 30		

** Based on 3,328 packages

†† 129,813 ..

†† 98,909 ..

* Based on 71,093 packages.

† 2,110,186 ..

† 1,991,394 ..

(N.B.—We reproduce last week's figures, as the Market Report of the Tea Brokers' Association for the week ending September 19th has not come to hand by this week's mail.)

(a) *Precis of reports on the London Market received on October 12 and covering the week ending September 19 :—*

(1) *Tea.*—During the week under review there was an animated market for all grades; including, strange to say, common and low mediums for which the bidding was particularly keen at prices from $\frac{1}{4}d.$ to $\frac{3}{4}d.$ in advance of those which obtained during the previous week.

(2) *Rubber.*—American buyers, who found it necessary to cover short sales for September, forced the spot price which we quoted last week at 3s. 3d up to 3s. 7 $\frac{1}{2}d.$; but deliveries for October to December and January to March showed no corresponding increase, and closed at 3s. 0 $\frac{1}{4}d.$ and 2s. 9 $\frac{1}{2}d.$ respectively as against the figures of 2s. 11 $\frac{1}{2}d.$ and 2s. 9d. which we recorded last week.

(3) *Coffee.*—The market continues featureless, and no East Indian Coffee was offered at the public sales, where however Kenyan and Central Americans brought in slightly firmer rates.

III. Weekly Rainfall Statement

From April 1, 1925, up to and including Saturday, October 10, 1925

Stations are arranged in order approximately south to north and those not in planting districts are shown in small capitals.

Stations	W.	P.	Total	Stations	W.	P.	Total
1. Kalthuritty.	1·64	70·90	72·54	17. Coonoor ...	Nil	20·65	20·65
2. Tenmalai ...	2·68	70·53	73·21	18. Kotagiri ...	0·29	25·95	26·24
3. Mundakayam.	3·99	125·59	129·58	19. Ootacamund	0·48	31·52	32·00
4. Peermade...	4·38	143·52	147·90	20. Yercaud ...	0·91	32·69	33·60
5. V'periyar ...	3·76	58·80	62·56	21. Devala ...	2·44	113·85	116·29
6. Kalaar ...	4·76	186·88	191·64	22. Gudalur ...	0·69	64·68	65·37
7. Chittuvurrai	1·10	27·20	28·30	23. CALICUT ...	3·05	110·08	113·13
8. BODI'KANUR	0·18	7·12	7·30	24. Kuttiyadi ...	N.R.	149·19	N.R.
9. COCHIN ...	3·57	81·73	85·30	25. Vayittiri ...	2·93	N.R.	N.R.
10. Mooply ...	4·45	85·58	90·03	26. Manantod... ..	0·26	99·94	100·20
11. Pachaimalai	2·85	107·01	109·86	27. Billigiris ...	N.R.	49·52	N.R.
12. Mudis ...	N.R.	166·61	N.R.	28. Sidapur ...	1·10	59·62	60·72
13. POLLACHIE.	Nil.	16·94	16·94	29. Somwarpett ...	0·86	70·74	71·60
14. Manjeri ...	2·89	98·80	101·69	30. Ballupete ...	N.R.	66·90	N.R.
15. Nilambur ...	3·49	84·44	87·93	31. MANGALORE.	4·83	125·41	130·24
16. Naduvattam	0·79	72·41	73·20	32. MADRAS ..	7·08	15·17	22·25

W = During the week.

P = Previously.

N.R. = No return.

The Planters' Chronicle

Recognized as the Official Organ of the U. P. A. S. I. (Incorporated)

Managing Editor's Postal Address : POST BOX 155, MADRAS

Do. do. Registered Telegraphic Address : UPASI, Madras

VOL. XX, NO. 43] SAT., OCTOBER 24, 1925 [PRICE, AS. 8

CONTENTS

	PAGE		PAGE
Editorial Notes ...	783	Letter to the Editor ...	795
The Outlook for Tea ...	786		
Tea Rot Disease by Dr. W. S. Shaw, Tea Specialist ...	788	Export of Oil-seeds from India since 1919 in Tons ...	796
Care of the Soil ...	792		
U.P.A.S.I. Sports Club—		Commercial and Meteorological ...	797
The Joint Secretaryship ...	793		
District Representatives ...	794		

EDITORIAL NOTES

We are very glad to publish this week what, from our readers' standpoint, may be regarded as the first fruits of Dr. Shaw's—*The U.P.A.S.I. Tea Specialist*—their Tea Specialist's—sojourn at Tocklai in Assam. We hope his interesting article may prove the first of a periodical series in our columns, giving the impression he receives from time to time from his intensive studies of Indian Tea.

The fluctuations in the price of Rubber have been extraordinarily rapid of late. Between the 2nd and 7th instants, for example, *Rubber Vagaries* the London 'Spot,' November, December, and January-March prices respectively jumped from 3/6½d. to 3/11d., from 3/3¼d. to 3/9d., from 3/2d. to 3/7½d. and from 2/11½d. to 3/4¼d. In other words the respective increases were 4½d., 5¼d., 5½d. and 4¾d.

The increase in 'Spot' alone might have of course been attributed to speculation or to a temporary shortage of 'Spot'; had forward positions not shown a corresponding increase. As the above figures show, however, the Forward positions rose to an even greater extent. This of course can only mean that the American Buyers are very seriously alarmed and firmly convinced that demand will be in excess of supply for at least six months. Their seasonal demand sets in in the Autumn and the European demand is also on the increase; so that even if estates were permitted to, and found that they could, produce more than 85 per cent of their standard production from November 1, it seems probable that any increases in shipments will be more than counteracted by the inevitable forthcoming increase in demand.

Since the 7th movements have not been quite so rapid: the highest 'Spot' quotation having been 4/0 $\frac{3}{4}$ d. on the 17th, and the lowest 3/10d. on the 12th. At the same time the unsettledness has been extremely marked and practically every day has seen a 1d. rise or fall. The chief cause of the downward tendencies appears to have been continued rumours that the Colonial Office had decided to relax Restriction by increasing the permissible exports from Ceylon from November 1 by 20 per cent instead of the 10 per cent contemplated by the Stevenson Restriction Scheme, and by increasing the estimated total Standard Production of the Island by about 10 per cent. On the 14th for instance a cable to the above effect from Colombo is stated by Renter to have caused a loss to operators of £500,000; but, on an official announcement from Whitehall that no such decision had been arrived at, the prices regained the morning's level before the close of the day.

The Governor-General in Council has, under the Stamp Act II of 1899, fixed the following as the rates of Exchange at which the under mentioned currencies will be convertible into Indian Currency for the calculation of *ad valorem* stamp duty on instruments chargeable therewith:—

Currency	Unit	Indian Equivalent		
	£	RS	A	P
British ...	1 sterling	13	5	4
French	1 franc	0	2	1
German ..	1 Renten Mark	0	10	9
U. S. A. or Canada	1 dollar	2	12	0
Strait Settlements	1 dollar	1	8	0
Hongkong and Mexico	1 dollar	1	9	6

The following conclusions—which Dr. Fletcher, the Director of the Institute for Medical Research, F.M.S., has arrived at after much careful research—corroborate very interestingly Dr. W. H. Thyne's statement (*vide* page 699 of our issue of September 19 Ed.) regarding the relative value of Cinchona Febrifuge (Cinchonine) and Quinine:—

'Cinchonine in doses of 0.1 grain per kilogram (i.e. 2.2 lbs. Ed.) of body-weight is less effective than quinine in reducing the fever and in clearing malaria parasites from the peripheral blood.

Cinchonine in doses of 0.1 grain per pound is as effective as quinine.

Cinchonine is not more toxic than quinine.'

The average weight of the coolies treated by Dr. Fletcher was 100 lbs.; so the above recommended dose of 0.1 grain per pound is equivalent roughly to the dose of 10 grains which Dr. Thyne recommends should be taken by each patient twice a day.

With a view to develop the use of Bank and Currency transfers, Money Orders, and Postal Insurances, and to discourage the practice of cutting Currency Notes, the Government propose (though they are prepared in the interim to consider objections made before March 31, 1926) to refuse on and after

Cut Currency Notes

April 1, 1927, to make payments under any conditions on cut Rs. 5 and Rs. 10 notes ; unless both the corresponding halves have, before presentation, been joined together again

When, however, half of a note value Rs. 50 or more is produced ; Government will pay within 14 working days half the value of the note, provided payment has not been previously made on the other half. The total value of the note will in no circumstances be paid until after from 5 to 8 years—even if the half of the note which was missing when the other half was presented for payment is subsequently produced. In other words the only way to secure the full value of the note before the lapse of at least five years will be (as in the case of Rs. 5 and Rs. 10 notes) to present the note for payment either intact or with the cut halves properly joined together again.

Prima facie Government discouragement of the use of cut notes, instead of the more regular alternative facilities available, seems quite sound ; but we comment on the proposal as it seems to us that Planters may find that their employees use cut notes ; not so much because they wish to save Money Order Commission as because they wish to save the unauthorized Commission which rightly or wrongly they fear postmen in the more remote districts would exact.

We are glad to add our tribute to the chorus of congratulation and *Honour where* praise which Mr. Kilimannil Moidu received when Mr. *honour is due* C. W. E. Cotton, C.I.E. I.C.S., presented him with the 'sanad' and 'badge' of 'Khan Sahib' at Trichur on the 10th of this month. The large gathering of European Officials and Non-Officials and of prominent Indians testified unmistakably that the public generally considered the honour well deserved. Mr. Kilimannil Moidu has proved himself not only thoroughly efficient in the ordinary round of routine as a Labour Contractor—first to the Nelliampathy and Kollengode hills, subsequently to the Periar Rubber Estate, and presently to the Mooply Valley Estates—; but also invaluable as an ally at critical times. He secured a large number of Moplah recruits and made liberal donations to charity during the Great War ; his influence during the Moplah outbreak of 1921 prevented the desertion of a single one of the coolies whom he had supplied ; and, again during the floods of last year, he proved his mettle by most generous gifts of money and rice to those who had been flooded out of their homes.

The occasion was also taken by Mr. Davey of Messrs. Darragh Smal & Co., Alleppey, to present Khan Sahib Kilimannil Moidu with a valuable gold watch on behalf of the management of the Mooply Valley Estates.

Cross Words
Again Demands on our space are so insistent that up to date they have resisted the invasion of the almost ubiquitous Cross Word puzzle, which seems to have found its way into practically every paper one takes up. We are glad however to welcome an ingenious example to our advertisement pages this week ; and are certain that readers, who have perhaps overtaxed themselves by studying the text of this issue after a hard day's work, will find agreeable mental relaxation on turning to page ix.

THE OUTLOOK FOR TEA

The suggestion made by a Correspondent elsewhere in this issue—that we should select exclusively invoices of not less than 50 packages for our Commercial Page—is one which in principle we thoroughly endorse and in practice will endeavour to observe. To take an extreme case, it would obviously be invidious were we to insert say an invoice of 20 packages which realized an average of 1s. 4d. and omit one of 100 packages which only realized 1s. 3½d.; but was comprised of 50 packages which sold at 1s. 5½d. and 50 which fetched 1s. 2½d.

But, in detail, practice has often to depart from the theories which in broad outline it observes; and, notwithstanding the force of our Correspondent's valued suggestion, we feel that a small invoice should legitimately be included when it is the sole representative of a particular District; and the choice is therefore not between it and some other parcels from that District, but between it and no mention of the District at all. Also perhaps it might be given mention in the exceptional circumstances when it realizes a price so markedly higher than any of the larger parcels; that the only way to account for the very low price of the latter is to assume that, if they really included a selection at all comparable to the smaller invoice, they must necessarily in bulk have been composed of tea of the most inferior kind.

We turn now to our Correspondent's invitation that we should don the mantle of the prophets, and commit ourselves to an opinion as to the prospect before Tea. Candidly the daily perusal of more or less irreconcilable prophecies by admitted experts whose experience is infinitely greater than our own makes us sceptical as to whether it is possible for even the most experienced and level-headed to do more than offer a very tentative opinion as to the probable outcome of events. There are so many interacting factors in the situation—weather and its effects on the crops, the sufficiency or otherwise of restriction, the incidence of demand, etc.,—that it is largely a matter of conjecture to say which particular ones will be determinants of predominating force. However, with these reservations, we are glad to give our opinion for what it is worth.

The London stocks were greater on 31-8-1925 than on 31-8-1924 by just 38½ million pounds. On the latter date and indeed up to October 31, 1924, they were normal; and the surplus which now exists and which is causing such concern really accrued in the last two months of last year. Thus the stocks were greater on November 30, 1924, than on November 30, 1923, by almost 21 million pounds; and by December 31, the figure had increased from 21 millions to the 38½ millions at which, as reported above, it more or less remained until August 31 last. The actual figures are given below:—

London Stocks of Tea In Bond

(IN THOUSANDS OF POUNDS)

—	1923	1924	1925	Increase in 12 months
at 31·10	146,990	149,494	...	2,504
at 30 11	152,288	173,084	...	20,796
at 31·12	165,666	204,333	...	38,667
at 31·8	..	126,499	165,085	38,586

The above table brings out forcibly the extraordinary increase in the London stocks which took place at the end of last year. That increase was in round figures no less than 55 million pounds as against 20 million pounds for the corresponding period of the year before. It was doubtless felt that such a position, though disconcerting enough, would be rectified in course of time, and that no serious consequences would ensue. To date however such hopes have been falsified by the extreme heaviness of the North Indian crop which at the end of August was (as the subjoined figures show) no less than 21 million pounds in excess of the crop to the same date last year.

Production of North Indian Tea

(IN MILLIONS OF POUNDS)

	1923	1924	1925
at 31.8 ...	182	174	195
at 31.12	327	326½	...

In such circumstances naturally the London stocks have undergone no reduction, and indeed we consider it is a matter for congratulation that they have not sustained any increase. We do think however that the London stocks will respond immediately there is a certainty of a reduction in the Indian output, and further, more we think that that psychological moment has now arrived.

Though we have no crop statistics later than August 31; we understand that the melemency of the weather, a severe scarcity of labour in North-East India, and also the increased attention which is being given to fine plucking are very rapidly reducing the 1925 output, that in the first half of this month alone the 21 million pounds excess (which presumably underwent no appreciable reduction in September) was reduced to 19 million pounds, and that good authority considers the Restriction Scheme which we announced on page 744 in our issue of the 10th will never become operative because the balance excess of 19 million pounds will be wiped out by the operation of the three factors enumerated above. After all, again, the 1925 crop on August 31 was only 13 million pounds in excess of the 1923 crop at the same date and it may inspire confidence to look sometimes at that year's instead of always at last year's figures, and thus realize that the Tea Industry has only to go 13 million instead of 21 million pounds better (or rather less!) than it did before. Both Cable and Post (*vide* pages 798 and 782 in our issues of this and last week) reports indicate the increasing firmness of the market; which, though naturally still rather lacking in confidence, gives no indication of any immediate falling off.

To sum up, we feel that with Restriction in reserve—should what we may call *vis medicatrix naturae* fail, unaided, to effect the required production in output—the outlook before the tea market is satisfactorily bright.

BLACK ROT DISEASE OF TEA

BY

DR. W. S. SHAW, TEA SPECIALIST*(now under training at Tocklai)*

TO THE

SCIENTIFIC DEPARTMENT OF THE U. P. A. S. I.

Introductory.—Before commencing a detailed account of the fungus causing Black Rot of Tea, it would be advisable to have some small grasp of the relation of the organisms causing fungal diseases to other living beings. It is usual to divide living beings into two large kingdoms, the animal and vegetable, the differentiation between the two being sharp except in the cases of the lower representatives. We are concerned with the vegetable kingdom, which is divided into two divisions:—

The flowering plants, and those such as Algae, Mosses, Ferns, etc., which do not flower.

A further division is necessary based upon the reproductive characteristics of the individuals of the non-flowering division, the two classes being—

1. those whose organs have no characteristic distinctions in form, e.g. Algae.

2. those which show a marked distinction in the form of their various organs, e.g. Mosses and Ferns.

The former class is represented by 14 sub-divisions, which include all the lower forms of vegetable life. Four of these sub-divisions, the algae, fungi, slime moulds and bacteria are responsible for most of the diseases of plants.

The Fungi, Slime Moulds, and Bacteria, differ from other vegetable organisms in possessing none of the green colouring matter (chlorophyll) of green plants and hence though most of their natural functions are the same as those of green plants, they are incapable of forming starch material. As a consequence of this inability to obtain organic food material the fungi are forced to thrive on the organic reserves, elaborated by green plants, either in the form of decaying tissue after death or on the living individual itself. Fungi are therefore classed as Parasitic, if growing on living organisms as hosts, and Saprophytic, if living on dead tissue. Another type of fungus frequently met with in the diseases of plants is one, which, after living on dead organic matter, can adapt itself to a living plant as host. An example of this type we have in the Red Rust disease of Tea. The methods of reproduction and dissemination amongst the fungi group is of vital importance, for it is by a study of these processes, that we are enabled to deal effectively with the eradication of the diseases caused by them. The mode of reproduction is by means of spores, of which there is a large diversity of types. These spores are formed either asexually by the mere cutting off of a portion of the fungus, and sexually as the result of the fusion of two portions, followed subsequently by division. These spores germinate to give new individuals. Some spores can remain dormant for many months, and in some cases are very resistant to adverse conditions. Thus any method for the eradication of a fungal disease must take this fact into account. Dissemination of a fungus is brought about by the threads of the fungus or by the spores; the former can be carried with the material on which it is growing, the latter by natural means, principally the wind.

The fungi include a large number of individuals which are divided into three classes ; this division depends up on the appearance of the threads, on the type of fructification and on the prevalence of sexual reproduction. Thus we have the following scheme :—

Fungi—

- I. Threads not interwoven ; sexual reproduction distinct ; asexual reproduction by spores.
- II Threads interwoven ; sexual reproduction obscure ; asexual reproduction by spores.
- III. Threads interwoven ; sexual reproduction frequently absent ; asexual reproduction by spores.

It is to this last group, termed the Basidiomycetes, to which the species of fungus causing Black Rot belong. The Hyphae (or threads) are interwoven, resulting in a fine mesh which to the naked eye appears to be a whitish film ; the type of spores by means of which dissemination takes place is termed the basidiospore. In getting rid of the fungus it is necessary to destroy both the threads and the basidiospores, as both are capable of reproducing the species.

Some of the fungi now accepted as belonging to the Genus *Corticium* were originally held to belong to the Genus *Hypochnus*. For example, *Corticium* Theae was originally called *Hypochnus* Theae. This was probably due to the difficulty in distinguishing the two types which only vary in the characteristics of the organs on which the spores are borne. It is now agreed that the Black Rots of Tea are caused by species of *Corticium*, viz. *C. Invisum* and *C. Theae*.

Black Rot was first observed on tea in Java in the year 1907 and in 1916 a similar disease was found in Ceylon. The fungus does not confine itself to tea but in addition, in Ceylon, coffee and cocoa are attacked. In South India besides, a black rot was found in coffee which appeared to differ from the disease found in Ceylon. It is also definitely known that many jungle plants are not immune from its attacks

Life Histories of *C. Invisum* and *C. Theae*

1. *Corticium Invisum*.—The fungus consists of very fine, almost invisible threads (hyphae) which proceed along the stems and spread over the under surface of the leaves. Once on the leaf, these threads unite to form a delicate film. A premature hardening of the stem owing to such film formation is also caused resulting in the production of scaly, grey patches. Spore formation in Ceylon commences in the dry weather, and it is at this stage in the development of the fungus that it becomes visible to the naked eye. The spores are formed in clusters of 2, 3 or 4 and owing to their development the films and threads become powdery and white, or pale pink.

As a result of this the under surface of the leaf becomes covered, either completely, or in patches, with a thick whitish film ; the patches may extend from the leaf stalk, or in circular patches anywhere on the leaf. The threads do not appear to penetrate the living tissue, and the evil results of the disease has been attributed to the blocking of the breathing apparatus of the leaf, but this is not entirely confirmed by observations. When the spores are ripe, they are broadcast and come in contact with a healthy bush, on which they commence to develop, and this is one of the

causes of the spread of this disease. Owing to the close proximity of the tea bushes, not much opposition to the spread of the disease is encountered.

Symptoms of C. Invisum.—The attack in Ceylon is only noticeable on the advent of dry weather. During the wet weather the mycelium of the fungus spreads over the bush, but owing to its delicate structure, it is practically invisible to the eye and therefore remains unnoticed. The first indication of the attack is given by a number of bunched up, small, blackish brown or chocolate spots on the younger leaves. The spots appear to be in small depressions and as the disease develops, these spots combine forming patches which gradually cover the whole surface of the leaf. This causes the blackening of the younger and tenderer parts of the bush, which, however, do not fall off immediately but remain attached to the stem, to which they adhere for a considerable period. The affected leaves hang vertically and adhere firmly to any other part of the bush with which it may come in contact. Hence a dead leaf attached to a stem, or clusters of dead leaves, are often found.

On older leaves the attack is not quite so general, in cases where the whole of the leaf is not attacked, the visible spots may be either large, depressed, and black, or chocolate brown with a blackish margin, or mottled, on the upper surface. When dry, the spots are grey and may easily be mistaken by grey blight unless a microscopic examination be made.

In order to ascertain whether the death of a leaf is due to a *Corticium* attack, or simply due to a physiological cause, the dead leaf should be pulled off carefully in a direction parallel to the stem. If the cause of death is *Corticium Invisum* a thin transparent film of interwoven threads peels off the stem. This test also serves as a distinction between Black Rot and a severe attack of Grey Blight.

Mode of Attack.—The fungus reaches the leaves by means of the threads which travel along the stem, finally arriving at the leaf, *via* the leaf stalk. The threads do not attempt to mount to the upper side of the leaf. It seems from observation, that the fungus cannot do any harm to the leaf from the upper surface, for no ill effects were seen when a diseased leaf fell on to the upper surface of a healthy one. The spots do not necessarily appear at the stalk end of the leaf first, but may appear at any part to begin with. Occasionally the fungus may accumulate in the junction between the stem and the leaf, in which case it forms a fairly dense, white or yellowish cushion.

Healthy leaves may be infected by coming in contact with diseased leaves, or by the adherence of diseased leaves which fall from the top of the bush.

Favourable conditions for the spread of the fungus seem to be a saturated atmosphere and a high temperature.

Dissemination takes place by the wind, which broadcasts the spores and by the carrying of the threads to other parts, such as, for example, during the transport of infected prunings for burning.

2. *Corticium Theae.*—This is the name given to a species of corticium found in Java. It, also, forms white or pinkish cords which run along the branches, ramifying and uniting indiscriminately everywhere. The disease is only found on young branches, e.g., 2 to 3 years of age. The cords are usually from $\frac{1}{2}$ to 2 mms. broad and occasionally form a film by expansion. On its coming in contact with a leaf stalk the cord proceeds along the stalk and covers the under surface of the leaf with a thin pink film.

Corticium Theae does not cause very much damage to teas but it is advisable to eradicate it promptly. It varies from *C. Invisum* in having a conspicuous cord on the stem, and it is this fact which makes it difficult to distinguish from Thread Blight.

Treatment of Black Rot.—The method of eradication of Black Rot is the same for both species of *Corticium*. The fungus usually attacks tea nearer the time for pruning, and the prunings of the infected and neighbouring bushes should be collected, and burnt. A certain amount of the fungus will still remain on the parts of the bushes unpruned and it is therefore essential that the bushes should be well sprayed with lime sulphur solution, (see later) after pruning.

In parts where the infection is great it is recommended that the areas should be thoroughly sprayed with lime sulphur solution. The small patches showing the least infection should be sprayed first, together with three rows of bushes round the diseased ones. The larger areas should be isolated and sprayed as soon as the time permits. The treatment should be repeated a week or so after the first spraying.

Preparation of the Lime Sulphur.—This is best carried out according to the following formula.—

Quicklime	..	..	20 lbs.
Sulphur	...	...	22½ lbs.
Water	...	...	50 gallons.

The lime should be placed in a drum of 50 gallons capacity and water gradually added to slake the lime. When the lime is completely slaked, 30 gallons of water are added, and the mixture boiled. While the solution is boiling, the sulphur is added gradually, with vigorous stirring the whole time, after which the volume is made up to 50 gallons with water and the boiling continued for an hour. The volume is kept at 50 gallons throughout the boiling. The mixture thus obtained is the stock solution, which, when cool, should be diluted with seven times the volume of water, when required for use in the sprayer and should be used immediately.

The stock solution should be stored in full, air-tight vessels or, if the vessel is not full with a layer of oil on the surface. The solution should not be stored in copper vessels owing to chemical interaction between the lime sulphur products and the copper, and for the same reason the spraying machines should be thoroughly cleaned out after use.

Note on Spraying.—The most satisfactory results in spraying have been obtained with the Four Oaks Pneumatic Knapsack Sprayers. These sprayers consist of a central charge Pump No. 1, 6 Battery Sprayers with necessary connections. 6-4 nozzle I.T.A. attachments and has an approximate cost of Rs. 1,200 (exclusive of freight and packing). More than 6 sprayers may be used with the single charge pump. The Container can be filled in about two minutes.

It is important that immediately after use, the sprayers should be thoroughly cleaned out.

References—

Petch, *Diseases of Tea Bush*.

Stevens, *Fungi causing Plant Disease*

Masse, *Text-book of Fungi*

Butler, *Fungi Disease of Plants*

Timstall, *I. T. A. Journals*

Engler-Gild, *Syllabus de Phytonen Krankheiten*.

CARE OF THE SOIL

BY

H. C. PINCHING, A.R.C.S.

(Concluded from page 776, issue of October 17.)

We must hastily turn to the last item in our programme, that is the re-stocking of the soil with plant food. The term 'manuring' is now used to mean this addition of plant foods to the soil, though it is interesting to note in passing that this term originally meant to 'cultivate' or dig the soil, from the old French *manœuvrer*, to work by hand. Defoe uses the word in this sense in *Robinson Crusoe*.

Two kinds of manures can be employed, viz., green manures and chemical manures. We have already discussed at some length the use of green manures in improving both the physical condition of the soil and also the way such manures add plant food to the soil. The difficulty on many old areas under Hevea, especially those areas which most of all require improvement, is to establish a green manure cover plant, on account of the unfertile nature of the soil. In many of such instances weeds refuse satisfactorily to grow so it is little wonder that the cover plant does not become established. The scraping of the surface soil into ridges and the planting of the cover plant in the ridges has been more or less successful in some cases. By allowing such weeds as will grow, to grow for a year or so and then weeding the area the organic matter thereby added to the soil may improve matters and the cover plant then planted may grow more or less satisfactorily. Further the shade is often a stopper to the satisfactory growing of cover plants. *Vigna* appears to withstand a good deal of shade but as it requires comparatively good soil it is generally of little use on the washed out soils one is so desirous of improving. I am afraid that very little tangible good to the standing trees can be expected from the use of green manures on old worn out soils. Their action is very slow and I am afraid insufficient to stir many of the old trees from their lethargy. You may have read how that the using of green manures on the H.A.P.M. gave negligible results. From these remarks I do not wish you to gather that green manures do not improve the soil. They undoubtedly must improve the soil, but the improvement is so gradual that year by year it is not able to bear any noticeable effect upon the trees. It is probable that the use of farm yard manure would have better and quicker results but unfortunately this manure is not available.

It would appear therefore that we are thrown on to chemical manures if we want any quick effects. Some of you may have read my remarks upon this matter which were given in the Rubber Growers' Association BULLETIN for February. Unfortunately we have very little data available from which to assess the value of chemical manures to rubber growers. We know that on a certain class of soil in Sumatra the H.A.P.M. were able to increase the yield of the trees by 106 per cent by employing sodium nitrate and ammonium sulphate as manures. While this indicates the possible effects of manuring with chemicals upon the output it by no means allows one to advise the use of these manures on all estates. Different soils will require different treatments. This was well shown by the H.A.P.M., for on their red soil areas these manures produced no marked results. If estates with poor areas contemplate carrying out manuring with

chemical manures it is absolutely imperative that different manures are tried experimentally first. Such experiments must be properly conducted with control unmanured areas. It is only from the results of actual experiments that one would be justified in manuring large areas.

In connection with these efforts to improve these old areas, the crux of the matter, in my opinion, must be 'Results versus Costs.' Unfortunately we have very little accurate data to work on. On first principles it would seem that such steps as, say, 'silt pitting' should improve the soil, but I have yet to see the carefully compiled results from any estate showing to what extent any improvement in growth, yield, etc., has been produced by this work. Many of us 'think' what an improvement is caused by silt pitting. We think we note an improved appearance of the trees. Still gentlemen, it is time, I would suggest, that we got into closer touch with these problems and attempted to secure more accurate data. Knowledge is power and without that knowledge we can flounder about for years spending large sums of money upon work from which we get no returns or at least returns not commensurate with the outlay.

This, gentlemen, brings me to the end of my paper. I do not offer these remarks as being of a highly scientific nature, indeed they are extremely commonplace. Still if I have only stimulated your interest in the urgent soil problems which confront the rubber growing industry, indeed all tropical agricultural industries, I shall feel that the time we have spent here this morning has not been wasted. I may not have brought to you any startling fresh information and possibly you disagree with the views I have expressed. It so, all the better, for you will now set yourself to prove matters and see who is correct.

(THE END.)

U.P.A.S.I. SPORTS CLUB

The Joint Secretaryship

Owing to the long delay which takes place in correspondence between the Secretary and the Southern Districts, it taking a fortnight to get a reply to a letter, Mr. H. B. Macpherson of Mundakayam has kindly consented to assist Mr. Fulcher as 'Joint Secretary for Southern Districts.' The Committee having approved of the appointment, Mr. Macpherson is from this date appointed a member of the Committee.

Laus Victis

I should like to take this opportunity, on behalf of the Sports Club, of thanking those fifteen members who, though beaten, made such a good show in Madras in the Rugger tournament. The following quotation from a letter received from Madras will show what was thought of them there:— 'Your people put up a damned good show against Ceylon considering that it was the first time they had played together. It was a very much closer game than the score indicated. If only your fellows had had a practice game it would have just made all the difference.'

It was unfortunate our team had to walk on to the field practically to be introduced to one another and take on the ultimate winners of the

tournament. Next year an effort must be made to make it possible for our men to get a little combined practice. The thanks of the Sports Club are also due to the team's hosts in Madras who looked after them so well.

An Appeal

I would also take the opportunity of appealing to all planters to join the Sports Club and send their subscriptions to the U.P.A.S.I. Secretary, Post Box No. 155, Madras, without delay. The financing of a team to Madras or elsewhere costs money and beyond this, at the Annual General Meeting held in Ooty last March, a resolution was unanimously carried that the travelling expenses of the younger men who play in any game for the Club or their district should 'so far as possible' be met by the Club. How far this will be possible rests with the planting community, but I feel sure that every planter will agree with the spirit of the resolution and help to carry it out by joining the Club.

STUART HAWKINS,
President,
U.P.A.S.I. Sports Club.

District Representatives

Central Travancore.—Mr. G. P. Farley, Tungamallay E., Vandiperiyar.

Mundakayam.—Mr. H. B. MacPherson, Kadamankolam E.,
Mundakayam.

West Coast.—Mr. C. E. M. Browne, Chemoni Valley E., Palapilly P. O.

South Travancore have yet to send in the name of their's.

Mr. H. B. MacPherson has kindly offered to assist the Honorary Secretary of the Club by becoming 'Joint Secretary for Southern Districts.' Southern Districts comprise the above four. Mr. MacPherson has therefore been appointed as a Committee member. Owing to postal communication with the Southern Districts taking a fortnight at least for the Honorary Secretary to get a reply, this appointment was found necessary.

Coorg.—Mr. J. S. H. Morgan, Greenfields E., Sidapur P. O.

Anamallais.—Mr. D. Cooper, Karamalai E., Valparai P. O.

Nilgiris.—Mr. C. R. Clayton Daubeney, Glencoe, Coonoor.

Nilgiri-Wynaad.—Mr. G. W. Fulcher.

Wynaad.—Mr. B. M. Behr, Audetode E., Perindotty P. O.

Kanen Devans.—Mr. J. Stuart Hawkins, Nettigudi E., Mattupatti P.O.,
via Periakulam.

Mysore.—Capt. E. M. Nixon, Canajore E., Mudigere P. O., S. Mysore.

Shevaroy's.—The Honorary Secretary of the District Association.

District Representatives are requested to see that subscriptions for the current year are paid in direct to the Secretary, U. P. A. S. I., Post Box 155, Madras. Membership forms are available from all Honorary Secretaries, District Associations.

J. W. FULCHER,
Honorary Secretary.

WOOLBRIAR ESTATE,
DEVARSHOLA P. O.

LETTER TO THE EDITOR

The Outlook for Tea

To

THE EDITOR,

THE 'PLANTERS' CHRONICLE',

MADRAS.

SIR,

With reference to your weekly list of highest prices obtained by S. Indian Estates at London Tea sales, may I suggest that you should consider limiting your selection to invoices comprising not less than 50 or 75 packages? In a few recent instances the invoices of the estates you have chosen as 'best sellers' have only comprised about 30-40 full chests and are, I think, 'B.O.P. only.' If you can see your way to adopt my qualification you can be practically certain that all such invoices will be eliminated and that the estates singled out for 'honourable mention' are those that have actually obtained the best average prices *for complete invoices*. I trust that my suggestion will not be taken amiss.

May I take up a little more of your space with a few queries regarding the outlook for tea generally and for S. Indian tea particularly? Do you consider that this is hopeful or the reverse? Will the restriction decided on by the I.T.A. of limitation of 1925 crop to the 1924 figure be sufficiently diastic to restore tone to the market? Perhaps you can kindly give us the final N. Indian crop figures for 1924 and show us what the probable effect will be on the stocks in U.K. by the close of the current year assuming that both S. Indian and Ceylon do not produce more tea in 1925 than in 1924 and that consumption does not fall short of 1924? It certainly seems unlikely in any case that the close of the season will see such large crops going forward as was the case last year but is it wise to be too optimistic?

That the present slump can long continue is inconceivable. The Indian and Ceylon Tea Associations have the experience of 1920 fresh in their minds and will, one cannot but imagine, take the earliest possible action to effect the necessary improvement in prices by deciding now on further restriction in 1926 if the necessary restriction already agreed to for 1925 should prove inadequate. A five per cent reduction in the Indian Ceylon crops would result in something like 20-25 million pounds less tea being produced next year; the amount of restriction needed is of course a mere matter of arithmetic and one can only wonder why the necessary action has not been decided on already. One feels that at all costs a 'laissez faire' policy must be avoided if there is not to be a repetition of 1920.

Yours, etc.,

WHY DELAY?

October 12, 1925.

BANGALORE—CENTRAL HOTEL, 'The Best in the Station.'

EXPORT OF OIL-SEEDS FROM INDIA SINCE 1919 IN TONS

	—	1919-1920	1920-1921	1921-1922	1922-1923	1923-1924	1924-1925	1925-1926 Four months
<i>Essential—</i>	...	...	...	...	...	...	...	...
Oil-seeds	...	7,031	6,707	7,643	12,421	12,600	12,277	4,768
<i>Non-essential—</i>	...	...	...	...	...	...	...	...
Castor	...	8,464	15,531	48,798	83,613	85,030	95,448	40,210
Copra	...	10,641	2,736	2,974	13,949	3,986	458	19
Cotton	...	248,749	99,900	92,221	183,192	149,873	161,297	93,423
Groundnut	...	111,735	104,015	235,891	267,384	257,045	379,114	117,489
Linseed	...	252,415	188,440	173,503	274,280	368,777	371,051	186,125
Mowra	...	2,210	5,061	910	24,149	7,752	1,819	394
Mustard	...	2,870	1,368	752	3,818	4,102	4,272	1,727
Poppy	...	7,735	4,302	6,482	4,458	6,403	5,632	2,527
Rape	...	122,818	183,823	133,697	251,931	336,920	260,637	48,369
Sesamum	...	49,326	11,832	31,098	36,436	9,537	30,510	17,096
Tea	...	43	44	19	12	54	67	...
Other sorts	...	367	360	201	19,971	8,786	7,870	3,704
Total Tons	...	824,404	624,119	734,189	1,175,614	1,250,865	1,330,452	515,851

NOTE.—The above statement is published by request, as a supplement to the statement of 'Export of Indigenous Manures from India since 1919' which appeared in our issue of September 26 last. The chief essential oil-seeds are Ajama, Aljavan, Aniseed, Caraway, Coriander, Cummin, Fennel, Fenugreek and Dil. Among non-essential oil-seeds we have omitted figures relating to 'Assalia' and 'Niger' as the figures are incomplete, and export is not large compared with other oil-seeds. The value of the oil-seeds exported in 1924-1925 was,—essential oil-seeds Rs 41,47,262, non-essential oil-seeds Rs. 33,13,88,797.

MADRAS,

October 20, 1925.

H. WADDINGTON,

Secretary,

U.P.A.S.I.

COMMERCIAL AND METEOROLOGICAL

I. The Rupee Exchange for the week ending October 17th, 1925

Bank Selling Demand Draft on London

12th	13th	14th	15th	16th	17th
18 5/32d.	18 5/32d.	18 5/32d.	18 5/32d.	Holiday	18 5/32d.

II. Summary of latest Market Reports and Prices to hand:—

(a) Some of the higher London Prices—

Highest prices realized on the London Market			Average prices obtained for tea			
Mark	Pkgs.	Price	District	Week ending September 19, 1925	January 1 to September 19, 1925	January 1 to September 19, 1924
TEA (WEEK ENDING SEPTEMBER 19)		s. d.		s. d.	s. d.	s. d.
(a) <i>Anamallais</i> —						
Kallyai	151	1 4	N. India	1 5 20	1 4 86	1 6 07
Sholayai	180	1 3½	S. India	**1 3 60	††1 5 46	††1 6 24
			Ceylon...	1 7 65	1 7 44	1 7 97
(b) <i>Central Travancore</i>						
Fairfield	28	1 4½	Java ...	0 11 55	1 0 68	1 2 73
Mount	50	0 11½	Sumatra.	1 2 57	1 4 12	1 5 05
Pasumallay	37	0 11½	Nyassa-land.	1 0 78	1 1 08	1 4 33
(c) <i>Kanan Devans</i> —						
Periavurrai	149	1 5				
Yellapatty	265	1 4½				
Gundumallay	164	1 4½				
Kalaar	154	1 4				
(d) <i>Nilgiris</i> —						
Ibex Lodge	.. 103	1 7½				
Glendale	.. 87	1 2½				
			Total	*1 5 89	†1 5 38	†1 6 38

** Based on 2,688 packages.

†† " " 132,501 "

‡‡ " " 104,592 "

* Based on 77,259 packages.

† " " 2,187,345 "

‡ " " 2,049,458 "

N.B.—Owing to a misprint in the London report, we quoted 11d instead of 1s. 11d., last week, as the price fetched by 120 packages of Nonsuch Estate tea.

(b) *Précis of reports on London Markets received on October 19 and covering the week ending September 26 :—*

(1) *Tea.*—The market showed a further improvement, demand was active and well distributed, and practically every thing realized higher rates. Good common and low mediums showed an irregular increase of from $\frac{3}{4}d.$ to $1d.$ per pound, and in the case of the finer grades there was an increase of at least $1d.$ per pound. It is satisfactory to note that South Indians shared in the general advance.

(2) *Rubber.*—Irregularity in the market continued, and the feature of the week was the tendency for the forward positions to harden : discount on them as compared with spot becoming less. To indicate this conveniently for our readers we repeat below the closing quotations for the previous week :—

—	Spot	October-December	January-March
Week ending 19-9-25	3/7½d.	3/0¼d	2/9½d.
Week ending 26-9-25	3/6d.	3/1¼d.	2/10d.
Increase or decrease	— 1½d.	+ 1½d.	+ ½d

(3) *Coffee.*—South Indian Coffee was conspicuous by its absence from the auctions ; which were well supplied with Columbian, Mexican and Kenyan kinds. For these there was good competition, and the best qualities fetched very high prices while even middling and poor descriptions recorded no fall.

III. Weekly Rainfall Statement

From April 1, 1925, up to and including Saturday, October 17, 1925

Stations are arranged in order approximately south to north and those not in planting districts are shown in small capitals.

Stations	W.	P.	Total	Stations	W.	P.	Total
1. Kalthuritty.	5.65	72.54	78.19	17. Coonoor ...	1.02	20.65	21.67
2. Tenmalai ...	7.61	73.21	80.82	18. Kotagiri ...	1.12	26.24	27.36
3. Mundakayam.	7.64	129.58	137.22	19. Ootacamund	1.48	32.00	33.48
4. Peermade...	9.25	147.90	157.15	20. Yercaud ...	1.37	33.60	34.97
5. V'periyar ...	4.87	62.56	67.43	21. Devala ...	7.03	116.29	123.32
6. Kalaar ...	3.54	191.64	195.18	22. Gudalur ...	1.69	65.37	67.06
7. Chittuvurrai	0.38	28.30	28.68	23. CALICUT ...	3.05	113.13	116.18
8. BODI'KANUR	N.R.	7.30	N.R.	24. Kuttiyadi ...	4.97	152.44	157.41
9. COCHIN ...	3.36	85.30	88.66	25. Vayittiri ...	8.02	N.R.	N.R.
10. Mooply ...	2.96	90.03	92.99	26. Manantodi...	N.R.	100.20	N.R.
11. Pachaimalai	3.20	109.86	113.06	27. Billigiris ...	0.24	50.37	50.61
12. Mudis ...	N.R.	179.32	N.R.	28. Sidapur ...	3.65	60.72	64.37
13. POLLACHI.	0.11	16.94	17.05	29. Somwarpett	1.85	71.60	73.45
14. Manjeri ...	5.07	101.69	106.76	30. Ballupete ...	0.70	67.09	67.79
15. Nilambur ...	4.15	87.93	92.08	31. MANGALORE.	4.28	130.24	134.52
16. Naduvattam	1.82	73.20	75.02	32. MADRAS ...	1.26	22.25	23.51

W = During the week.

P = Previously.

N.R. = No return.

The Planters' Chronicle

Recognized as the Official Organ of the U. P. A. S. I. (Incorporated)

Managing Editor's Postal Address : POST BOX 155, MADRAS

Do. do. Registered Telegraphic Address : UPASI, Madras

VOL. XX, NO. 44] SAT., OCTOBER 31, 1925 [PRICE, AS. 8

CONTENTS

	PAGE		PAGE
Editorial Notes ...	799	The Spotting of Crepe Rubber	808
A Tea Research Institute for Ceylon ...	801	The U.P.A.S.I. Sports Club...	811
The Coffee Market—Review for July–September, 1925 ...	802	Exports of Rubber from the East from 1905–1924 inclusive ...	812
West Coast Planters' Association—General Meeting of October 17, 1925 ...	805	Commercial and Meteorological ...	813

EDITORIAL NOTES

We were on firmer ground than we knew at the time, when in our leading article last week we took an optimistic view of the probability of an early and appreciable reduction in the North Indian output of Tea. When we wrote that article our information was merely that the crops for the first half of the current month were some 2 million pounds below those of the corresponding period of last year. It now transpires that the decrease for that period was 4 million pounds and not 2 millions as we stated, and also that the September crops showed a shortage of no less than 11 million pounds as compared with the crops in September, 1924. In other words the excess of the 1925 over the 1924 crops of North Indian Tea which was no less than 21 million pounds at the end of August had by the middle of this month been reduced to 6 million pounds.

The London Rubber stocks are so low (under 5,000 tons against the 45,000 tons of this time last year), that the Americans seem to be realizing at long last that buying at the present—to them outrageously high—prices is the only method of making certain of the supplies which they require for the remainder of this year. Their awakening to the realities of the situation is doubtless largely due to their experience earlier in the year; when they stood out of the market—with the object of bringing prices down, but with the result of allowing speculators to corner the available supplies. Eventually to their chagrin they were compelled by sheer force of circumstances to take over the cornered supplies at a price inflated by middlemen's charges to a figure very considerably above the market rate at which in the first instance they had so shortsightedly 'jibbed.' *Experientia docuit*: apparently they are not going to be caught napping twice.

The Buyers of course pass the cost of the raw material on to the American public, and there is no reason whatever for believing that the latter cannot comfortably foot the bill. On the contrary their motoring proclivities seem to have been in no way curtailed by the enhanced cost of the almost ubiquitous balloon tyre. The U. S. Department of Commerce; after an unprecedentedly exhaustive census taken from 457 factories and asserted to be correct within a margin of 1 per cent (the American Rubber Association's statistics contemplate a possible margin of error of 10 per cent); announce that the American consumption of rubber for January to July inclusive has been no less than 233,875 tons, against 190,000 tons for the corresponding period of last year. Furthermore the Department anticipates that the continued persistent demand for balloon tyres will quite probably preclude any manifestation of the seasonal decline in consumption which ordinarily occurs during the second half of the year.

If the Rubber Association of America proves correct in the estimate which we gave on page 612 of our issue of August 22 that the 1925 rubber consumption would be 540,000 tons; it would appear that the world's stocks at the end of 1925 will be only 160,000 tons as against the 360,000 tons (i. e. approximately two-thirds of the world's annual consumption) which British and American interests fixed some years ago as the normal adequate amount.

Mr. F. L. Killick, the Rubber Editor of *The Financial Times* who has just completed a four weeks' tour of the Rubber Plantations in Malaya, stated in an interview at Colombo that he had modified very considerably the view—hitherto held by him in common with many of the most prominent men in rubber circles at Home—that the older planted areas were rapidly on the down grade. His visit, he stated, had convinced him that such plantations far from being played out had benefited greatly by the enforced rest of the past three years of Restriction and by the modified system of tapping now in vogue. He stated that it was now his firm conviction that the future of the rubber industry was assured for many years to come.

Elsewhere in this issue will be found a detailed analysis of the Coffee position by Messrs. Leslie and Anderson who report that business in East Indians is extremely slack. Our own information from local sources indicates that the sale of the old crop has been rendered difficult by the exceptionally early arrival of the new one: and that even the new crop is causing little activity in the market because buyers are limiting purchases to immediate requirements and are not inclined to buy forward owing to their unfortunate experience last year.

Cardamoms, we understand, are continuing to fetch good prices ranging from 8s. 3d. per pound for fine bold 'Mysore Plantations' to 7s. for 'Malabar.' The statistical position is sound and there is every prospect of the market continuing firm at the present remunerative rates.

Pepper is also flourishing and our latest London quotation is 9½d. per pound for Tellicherry Black. The statistical position is so strong, that it is quite possible that this price will shortly advance.

Cinchona, on the other hand, is unfortunately experiencing a slump, and the stock now stands at the high figure of 2,792 packages, while the price is down to 7d-9d. per pound for good quality Succirubra Chips, and the value of the unit of Cryst. Sulph. Quinine to-day is not more than 2d. per lb.

A TEA RESEARCH INSTITUTE

FOR

CEYLON

On the 9th instant a 'Tea Research' Ordinance passed through all its stages in the Ceylon Legislative Council and became law. The Ordinance provides firstly for the collection of funds which will serve to establish and maintain a Tea Research Institute in the Colony; and, secondly, for the incorporation of a Board of Management in whom the ultimate control of the Institute is to vest. The Ceylon Planting Community has long felt that the Agricultural Department of the Colony—admirably as it fulfilled its functions within the limitations by which it was circumscribed—could not study adequately the Chemistry and Diseases of Tea since it had neither estates nor factories of its own. Hence they resolved by an overwhelming majority, of 312,580 acres against 8,676 acres to raise the necessary funds for establishing their own Tea Research Department by imposing an export tax of 1/10th of a cent per pound of tea.

The Planting and Mercantile communities realized, on the one hand, that the organization which they had at their command in the Chamber of Commerce would require considerable expansion and remodelling if it were to undertake adequately the collection of the proposed cess; and, on the other hand, that the Customs Department of Government was as it stood admirably equipped for the purpose—which could be achieved automatically by merely increasing the present export levy by the amount of the new tax. An ordinance was therefore framed to legalize Governmental participation in the collection of funds under the scheme.

A certain amount of opposition was evidenced during the three hours debate which preceded the passing of the ordinance into law. The objectors took their stand on the constitutional ground that the enhancement by Government of the export duty on tea would compel the minority which had voted against this entirely non-official scheme to support it against their will. The Attorney-General however made short work of this contention by a speech in which he showed quite clearly that the Council, if they wished to, had every right despite an objecting minority to assent to an enhancement of the export duty; for, as he pointed out, there had never yet been a tax to which a small minority was not opposed.

The ordinance provides Government with a *quid pro quo* for its assistance in collecting the necessary funds. The Colonial Treasurer and the Director of Agriculture are to have seats on the Board of Management; and their presence will ensure both that the money collected is properly expended and that the policy of the Institute is not in any way prejudicial to the agricultural interests of the Colony as a whole. In other words the Director of Agriculture will be as it were the liaison between the general work of the Agricultural Department and the specialized activities of the Tea Institute; and similarly the Colonial Treasurer will be the connecting link between the Government Department which will collect, and the unofficial organization which will expend, the funds. Furthermore the interests of small holders are protected by a provision in the ordinance that the Governor shall nominate a person to represent them on the Board of

Management ; and the Institute guarantees that the results of its researches will be periodically published in book form for the benefit of the public at large.

We gather that the Institute contemplates taking over four estates and four factories for research work, and that Mr. T. Petch, B.A., B.Sc., formerly Mycologist to the Ceylon Agricultural Department is to be the Chief Expert in charge.

Taking the exports of tea from the colony to be about 200,000,000 lbs. per annum the annual income of the Institute from the new cess will be some Rs. 2,00,000.

A sum in the vicinity of this figure—apart altogether from any profits which may accrue on the working of the four estates mentioned above—should allow ample scope for the rapid development of a thoroughly equipped Research Institute—after it has met the presumably modest annual interest charges due to the promoters who we understand are as leaders of the Tea Industry proving their enthusiasm for the Scheme by finding the money to meet the initial expense.

We, for our part, are sure that South Indian Planters will watch with lively interest the development of this project of their brother planters in Ceylon; and look forward to the day when the results of the intensive Research which it contemplates will be evidenced in Scientific Findings of very appreciable value not only to Ceylon but also to the Planting World as a whole.

THE COFFEE MARKET

Review for the quarter ending September 30, 1925

Messrs. Leslie and Anderson write :—

With the seasonal decline in arrivals of Mild Coffees during the past three months, prices in our spot market have gradually improved. Values of medium quality Coffees shew an appreciation to-day of 10 to 15 per cwt. on prices ruling at the end of May, whilst fine quality Coffees, which are scarce, are realizing full prices.

With the exception of one or two sales of 5 and 10 ton lots of East India new Crop, up to 144 per cwt. C.F.I. we cannot trace that any important sales of crops have yet transpired. Enquiries for Crops, to a limited extent, emanate from Continental sources, but the prices suggested, so far, have not resulted in sales. From advices from India, where we regret to hear Crops, on the whole, are likely to be smaller than 1924/25, we are informed Planters would entertain offers on the basis of their sales last year, viz., about 150 per cwt. C.F.I., but buyers are at present not disposed to pay so much. London market dealers show little inclination to commit themselves to forward purchases in the way they did last season, for we believe the result of their operations last year were, in most cases, disastrous. We are inclined to think the bulk of the East India stock—shewn in figures below—represents the Coffees bought on C.F.I. terms in October/November, 1924. Holding Costs here (including interest) are about 1 per cwt. per month, so that their position is not an enviable one.

The Costa Rica 1925/6 Crop is reported to be late, and the total rather less than last Crop.

The Kenya 1925/6 Crop is not expected to reach the total of last season, the reduction being attributed to a spell of drought. The earliest arrivals of this Crop now reaching us shew a small berry with poor colour.

Shipments of Bukoba (East Africa) Plantation have on the whole turned out satisfactory, while the only parcel of Bukoba Native that we have seen here has a very undesirable appearance—the bean being small, mottled and musty. A portion of this shipment has been sold at 82/- per cwt. landed terms.

The market for Brazil Coffee has on the whole remained steady. Speculative sales of both Santos and Rio Coffee for July/August shipment, in which transactions took place in May/June down to 90/- and 75/- per cwt. C.F.I. have had to be covered in at considerable loss, seeing the Brazilians have shewn a firm front. A rise of about 1½d. in the Milreis Exchange has helped them to maintain their prices.

The World's Statistical Position of Coffee shows little change from the figures we presented at June 30 (*vide* page 550, issue August 1st, Ed.) when we estimated the 1925/6 Crops at 26 millions of bags, though this figure is to-day perhaps a full one, in view of latest estimates of Crops. There are no signs then of any scarcity of Coffee and values in the future continue to depend on the Brazilian's ability to finance their Crops. At the moment they appear to be able to maintain prices on a 'Scarcity' level, though we understand they are anxious to make larger sales. The American traders continue their policy of hand-to-mouth buying so that the supplies of invisible Coffee in up-country stores in Brazil must be accumulating, and the 1925/6 Mild Coffee Crops will shortly be marketable for December/January shipments.

The result of an American Coffee Mission to San Paulo, with a view to obtaining supplies at more reasonable prices, does not appear to have gained any concessions from the San Paulo Government, who state that in view of the statistical position current prices are warranted. They maintain they wish to stabilize prices so that their good and bad Crops may be marketed without extreme fluctuations in prices, but will they be able to do this when a bumper Crop, now due, comes along?

The outlook for prices here continues good for good Coffee, but when deliveries of Mild Coffees increase in the New Year we look for a repetition of the decline in spot values which began in March last season.

We quote spot prices current in London as follows:—

East India—Good to Fine	.	'A' size—145 at 160 per cwt.	
Do. Medium	.	do. 128 „ 142 „	
Costa Ricas—Good to Fine	.	do. 155 „ 190 „	
Do. Ordinary to Medium...	do.	135 „ 155 „	
Kenya—Good to Fine	...	do. 130 „ 145 „	
Do. Medium	...	do. 118 „ 130 „	
Bukoba—Plantation (bulkcd)	.	100 „ 102 „	
Do. Native do.	..	90 „ 92 „	
Santos Superior C. & F.	..	102 „	

Statement in tons of the Imports, Deliveries and Stocks of Coffee at the Port of London for the first 38 weeks of the years 1925, 1924 and 1923.

	Landed		Home Consumption		Export		Stock		
	1925	1924	1925	1924	1925	1924	1925	1924	1923
British West India ...	138	67	80	42	10	30	100	57	119
British East India ...	4,457	1,537	1,257	1,195	756	415	2,465	341	1,275
Total British ...	4,595	1,604	1,337	1,237	766	445	2,595	398	1,394
Mocha ...	833	885	477	393	181	294	524	346	251
Foreign East India ...	1,099	715	1,309	577	105	202	500	428	449
Brazil ...	619	1,030	547	1,264	151	807	663	900	19,141
Colombian ...	1,644	1,058	615	444	553	411	1,002	342	417
Costa Rica ...	9,420	9,590	4,396	4,491	3,057	3,159	3,106	2,763	2,015
Guatemala, etc. ...	1,952	1,032	447	635	590	846	1,280	731	1,898
African ...	6,078	7,820	4,642	5,254	450	1,659	2,305	1,458	842
Total Foreign ...	21,645	22,409	12,154	13,058	5,097	7,378	9,380	6,968	25,053
Grand Total ...	26,240	24,013	13,491	14,295	5,863	7,823	11,975	7,366	26,447

THE WEST COAST PLANTERS' ASSOCIATION

(INCORPORATED)

Minutes of an Extraordinary General Meeting, held at the Mooply Valley Club
at 10.30 a.m., on Saturday, October 17, 1925

Present .

Mr. H. J. Walmesley (*Chairman*), Messrs. H. C. Leslie, P. N. Ashby, J. C. Mitchell, P. Maxwell-Stuart, G. H. J. Stevenage, W. F. Campbell, E. Simpson, M. R. Fetherstonhaugh, G. M. Brameld and C. E. M. Browne (*Honorary Secretary*).

1. *The Minutes* of the last meeting were read and confirmed.

Delegates' Report

2. Mr. H. C. Leslie read the following report of the delegates to the U. P. A. S. I. Annual General Meeting :—

MR. CHAIRMAN AND GENTLEMEN,

It is to be regretted that the Book of Proceedings is not yet in your hands. The delay, I understand, is due to non-delivery by the printers.

At your request we attended the Annual General Meeting of the U. P. A. S. I. held in Bangalore on August 17, and beg to submit our report.

Rubber Mycological Station.—Your delegates proposed the following resolution, which was carried unanimously :—

'That this Association places on record its appreciation of the services rendered by Mr. Ashplant.'

The representative of Mundakayam proposed, and your delegates supported, the following resolution which was carried with acclamation :—

'That this Association wishes to record its gratification at the reappointment of Mr. Ashplant for a further period.'

Your delegates enquired about the rumour that Mr. Ashplant was to go to Burma, which was denied by the Chairman.

Reorganization of the S. I. Branch of the R. G. A.—A new reorganization scheme was brought forward and passed with sundry alterations. In order not to waste your time, we place a copy of the new scheme, with amendments as passed, on the table.

The main amendments are that the Secretary of the U. P. A. S. I. is to remain Secretary of the S. I. Branch of the R. G. A. and the Rubber Mycological Station is to be controlled by the U. P. A. S. I. The reason for this being that Mr. Ashplant is under agreement to the U. P. A. S. I.

Your delegates protested against this new scheme being sprung on them, without any notice at all.

You will observe that a member of the mercantile interests is to be nominated by the U. P. A. S. I. In this connection Mr. H. D. Patch of the Madura Co. was elected.

It was also decided that the new scheme should come into force at the close of the present financial year of the R. G. A.—March 31.

Nilgiri Nursing Home.—There was a considerable discussion on this matter, and it was decided that the interest on monies realized by the sale of the buildings in Ootacamund, be devoted to the reduction of fees of those members of the planting community who served in the war.

Cochin Harbour.—The following resolution was proposed by Mr. J. A. Richardson and seconded by your delegates and passed unanimously:—‘That this Association makes urgent representations to the Government of Madras that the widening of the Shoranur-Ernakulam Railway be proceeded with, with the least possible delay.’

U. P. A. S. I. Sports Club.—It was decided that any member of a District Association be eligible for membership of the Sports Club.

As this matter will come up for discussion shortly, we refrain from taking up your time with explanation at present.

The following resolution was proposed by your delegates and carried unanimously:—‘That the next annual sports meeting be held in Ooty during the second half of February.’

Your delegates took the opportunity of thanking the delegates from coffee planting districts for having so kindly met them half way in the matter. In this connection, we should like to point out that having been so generously treated, it is up to members of this Association to show their appreciation, by joining the Sports Club, and attending the Sports Week if they possibly can get away.

Labour Department.—There was considerable discussion regarding the control of Control Committees, but this was not of great interest to this Association as we have no Control Committee to control.

Definition of Planting Areas—Under this heading your delegates proposed the following resolution at the General Committee meeting that took place at Bangalore:—

‘That the following area be closed to outside recruiting. Area see p. 140, Book of Proceedings, 1925.’ This was passed, but estates now recruiting in this area were allowed six months in which to register their maistries.

Finance.—Your delegates proposed the following resolution which was carried unanimously.

‘That the sums shown in the balance sheet as bad and doubtful debts, be written off against reserve for same.’

These sums are due by two estates that were members of this Association, and have refused to pay up. We refer to Periyar and the Cochin Rubber Co.

Roll of Honour.—It was decided that the Executive Committee be instructed to draw up a scheme for a roll of Honour.

Planters' Provident Fund.—It was decided to drop this matter.

U. P. A. S. I. Buying Agency.—The Secretary reported that a sum of Rs. 1,943-11-8 being profit on Buying Agency had been paid into the Benevolent Fund.

Planters' Benevolent Fund.—The Secretary informed us that the case put up by the Committee of this Association had been accepted and the parties sailed for England on August 16.

Election of Chairman.—Your delegates supported the election of Mr. R. Fowke.

This, Gentlemen, concludes our report, and we shall be pleased to offer any explanations in our power.

C. E. M. BROWNE.

H. C. LESLIE.

3. A vote of thanks to the delegates was proposed from the Chair, and carried unanimously.

Delegates' Expenses

4. Proposed by Mr. Ashby and seconded by Mr. Stevenage, 'That the delegates' expenses amounting to Rs. 300 be paid.' Carried *nem con.*

Personal Membership

5. This was discussed fully, and it was decided that this Association should fall into line with other District Associations. The following resolution proposed from the Chair was passed:—

'The Committee of the Association be asked to draft an amendment to the Articles of Association providing for a nominal subscription for private membership of European Employees of estates which are already members of the Association for the approval of the Association at the next meeting.'

Accounts

6. The Honorary Secretary was instructed to write off the sum of Rs. 0-13-6 shown in the books as due by the U. P. A. S. I.

Communications

7. The Honorary Secretary was instructed to draw the attention of the District Traffic Superintendent to the inconvenience caused to passengers travelling to Calicut by the Mail train, and to request that arrangements be made for better connection at Shoranur. The Honorary Secretary was instructed to write to the Cochin Chamber of Commerce for their support in the matter.

U. P. A. S. I. Sports Club

8. 'A sub-committee consisting of Messrs. Browne, Ashby, and Brameld were appointed and they were requested to try and get a cricket

eleven together and to arrange a few fixtures. Offers of a cricket out-fit by Mr. Browne and a matting pitch by Mr. Walmesley for the Mooply Valley Club were recorded.

Labour Rates

9. The Honorary Secretary was instructed to write to the Manager of an estate subscribing to this Association, and enquire whether there is any truth in the rumour that rates have been raised on this estate. If so whether notice was given to the Labour Department under Rule XIII of the Labour Rules.

Planters' Trustee on the Cochin Port Trust

10. The following resolution proposed by Mr. Browne and seconded by Mr. Ashby, was passed :—' That the election of the Planters' Trustee on the Cochin Port Trust be delegated to the Executive Committee of the U. P. A. S. I.

Re-organization of the R. G. A. S. I. Branch

11. The following resolution proposed from the Chair, was passed :—

' Pending further information as to new proposals regarding the re-organization of the S. I. Committee of the R. G. A., the matter be postponed until the next meeting.'

Subscriptions

12. The Honorary Secretary drew the attention of the meeting to the extra office work entailed by members not paying their subscriptions promptly, and was instructed to place this on record.

13. The meeting terminated with a vote of thanks to the Chair, and to the members of the Mooply Valley Club for the use of the room.

C. E. M. BROWNE,
Honorary Secretary.

H. J. WALMESLEY,
Chairman.

THE SPOTTING OF CREPE RUBBER

BY

W. BROWN, M.A., D.Sc.

(Imperial College of Science, and Technology, South Kensington).

As a result of experiments made in 1924, it was reported—states the September number of the 'Bulletin of the Rubber Growers' Association'—that a number of fungi had been isolated from discoloured crepe rubber, and that some of these were able when inoculated on clean crepe to cause spotting. The most active fungi in this respect were a *Fusarium* and a *Penicillium* which were associated respectively with violet and yellow spots. With the experimental methods available at the time the progress of spotting was somewhat slow, and in the case of neither fungus did the degree of spotting, apart from special conditions, reach the intensity shown by the naturally discoloured material. It was decided therefore to carry out experiments with a view to finding if possible some method of intensifying the spotting effects. The advantages that would be derived therefrom would be (1) that experiment would proceed more quickly and surely ;

(2) that any method which proved effective in preventing spotting under such favourable conditions would be all the more likely to be applicable to the conditions prevailing in the drying shed. A method has in fact been developed whereby intense spotting of the rubber takes place within two days from the time of inoculation. To judge from published reports, this represents a rapidity of spotting much greater than is met with in practice. There is a likelihood therefore that the methods which have proved effective in preventing spotting under these drastic experimental conditions will be *a fortiori* effective under the less favourable conditions for spotting which prevail in the drying shed.

The method of experiment employed in 1924 was as follows. Strips of clean crepe rubber were sterilized overnight in formalin and the latter then removed by repeated washings with sterile distilled water. After the sterile strips had thus remained for some days in water, in which time they had absorbed a percentage of water in the neighbourhood of 10 per cent, they were placed in sterile plugged test tubes containing a few cc's of nutrient agar in the bottom. The purpose of the nutrient was to give the fungus a start. The fungus, which was placed on the aga, grew on to the rubber strip and in the course of about a week, spots of colour appeared on the rubber.

The work to be described in the present report was mainly confined, for reasons of experimental convenience, to the species of *fusarium* mentioned above. The advantages shown by this fungus consisted in its profuse spore formation, which was a great convenience from the point of view of inoculations, and, as will be shown later, in the great rapidity with which spotting took place under certain conditions.

The previous experiments had shown that when strips of rubber were placed in tubes containing a few cc's of a medium with 2 per cent glucose as source of carbon and with an ammonium salt as source of nitrogen, rapid and intense colouring of the rubber ensued when the medium was inoculated with the *Fusarium*. The medium itself also became intensely coloured and thus a certain amount of doubt remained as to whether the colour was formed first in the nutrient medium and simply diffused into the rubber. It was realized also, from an examination of typical crepe analyses, that such experimental conditions could have little relation to the natural ones as the sugar content of crepe rubber is almost negligible in amount. It was necessary, therefore, to find out some other method of producing intense colouration which did not involve the addition of a medium rich in carbohydrate to the experimental tubes.

As a result of enquiries in the East it was ascertained that the water content of crepe rubber at the time it is first hung in the drying shed is in the neighbourhood of 20 per cent. On the other hand the dry crepe rubber when soaked in water at ordinary temperatures (17°) even after a week or so only takes up about 10 per cent of water. It was thought therefore that the low water content of the experimental material might be responsible for slowing down the rate of fungal invasion and therefore of colour development. Accordingly attempts were made to increase the amount of water absorption by the rubber material

As was anticipated, temperature was found to be a factor of great importance in determining the amount of water taken up by crepe rubber. Table I gives the water content (in terms of the wet weight) of a series of

strips cut from the same sheet of rubber and submerged in water at various temperatures for a period of four days.

TABLE I.

Temperature.	% Water after 4 days' soaking.
17° (Lab. temp.)	13.2, 13.5, 13.9, 14.7. Av. 13.8
25°	16.9
30°	18.4
47°	34.8
55°	45.1

The four determinations in the first row of the above table illustrate the kind of agreement obtained for strips from the same sheet which have undergone the same treatment. On the basis of all the determinations which have been made in the course of the present work it may be stated that the range of variation of percentage water content for strips similarly treated is about 2 in the units' place (e.g. from 13 per cent to about 15 per cent for the four strips soaked at 17° in the above table). This, however, only applies for strips cut from the same rubber sample. Different samples show very considerable differences in their capacity of imbibing water. This feature is probably correlated with the presence of varying small amounts of salts and other chemicals, as it is known that the presence of traces of various substances has a very marked effect on the rate of imbibition of water by gelatine and other colloids. The figures given in Table I are, in fact, unusually high. Table II illustrates the range of figures which have been obtained in the various determinations made in the course of this work.

TABLE II.

Water Content after 4 days' soaking at—

	17°	47°
From Table I	13.8 per cent.	34.8 per cent.
Lowest figure recorded	6.7	19.4
Average figure (about)	10	25

Ten per cent may be taken as the average water content of rubber after 4 days' soaking in water at ordinary temperature. Even after 3 weeks' soaking in the cold it does not rise to an appreciably higher value.

It would appear likely that the swelling power of rubber in water is conditioned by the swelling of the protein which is present as an essential impurity. On the analogy of the behaviour of a protein like gelatine there was therefore a possibility that the swelling power of crepe rubber was reduced by the process of formalizing which was adopted for the purpose of sterilization. An examination of this point did, in fact, indicate that formalized crepe actually had lower swelling power than control unformalized material, but the difference was small and from the point of view of its influence on the intensity of spotting it was negligible. The formalizing process was thus retained in the routine preparation of the rubber for experimental purposes, though as a matter of fact it was not absolutely essential. Conditions were found so favourable for rapid spotting that the presence of contamination, fungal or bacterial, made no difference, and furthermore the process of soaking the rubber in water at a fairly high temperature was sufficient to kill off practically all organisms present on the rubber. However, as a matter of safety, the strips were sterilized by formalizing as a routine process.

(To be continued)

U. P. A. S. I. SPORTS CLUB

Subscriptions

DISTRICT REPRESENTATIVES are asked to make their own arrangements in their own districts for collecting annual subscriptions from members.

A list of last year's members will be found on pages 521-2 in the *Planters' Chronicle* of July 25 last. A certain number of new members have since joined from three districts, Wynaad, Mysore and Anamallais, and have paid for this current year 1925-26.

It would greatly assist District Representatives if members, paying their subscription direct to U.P.A.S.I. office, would inform their District Representative that they have done so.

The first list of membership for 1925-26 will be published in December.

The Committee appeal to all members to make a point of seeing that their subscriptions are paid well before the Annual Meet in February, to avoid having the trouble of collecting during the Meet, which has been the case hitherto in many cases. More especially it is necessary this year, as the 'General Admission Ticket' for the Meet cannot be issued to a member, if his annual subscription has not been paid.

Admission tickets will be available from Miss Barber, Ootacamund, after January 1 next. Members' wives and relations attending the Meet must be provided with a ticket.

Notes on Meet

Opening date, Friday, February 19.

Closing date, Sunday, February 28.

February, 26, 27 and 28 have been fixed with the M. C. C.

(Cricket Match will be on either first two or last two days.)

Tennis

Colonel Harper is very kindly giving a challenge cup for men's singles in place of the cup he first offered for Golf, as the water scheme on the Ooty links is not coming off at present. Conditions will be published later, and the Cup will be known as the 'HARPER' Cup.

There will therefore be, in addition to the annual Inter District Tennis, the 'MURPHY' Cup for ladies and the 'HARPER' Cup for men. There will be no Gymkhana Tournament this year and time could not be found for it.

Anamallais Jazz

We are very pleased to hear that this is coming again this year.

To all Members

Please read your Chronicle weekly. Notices of the February Meet are being frequently published now, and the Chronicle is the only medium we have for circulating members.

WOODBRIAR ESTATE,
DEVARSHOLA P.O.,
October 24, 1925.

J. W. FULCHER,
Honorary Secretary.

NET EXPORTS OF PLANTATION RUBBER FROM THE MIDDLE EAST

Years	BRITISH POSSESSIONS						Nether-lands-India	French Cochinchina	Grand Middle East	British Share of Grand Total
	Ceylon	British Malaya	India and Burma	British Borneo	Total British	Tons				
	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Pet cent
1905	70	104			174				174	100
1906	145	432			577				577	100
1907	250	905		2	1,157				1,157	100
1908	300	1,402		4	1,796				1,796	100
1909	681	2,698		7	3,386				3,386	100
1910	1,522	5,713		34	7,269				7,269	100
1911	3,061	10,895	332	95	14,383				14,383	100
1912	6,628	20,540	643	277	28,088				30,113	93
1913	11,325	33,213	1,040	608	46,186				51,721	89
1914	15,336	46,430	1,343	883	63,902				73,153	87
1915	21,787	70,516	2,161	1,631	96,095			191	114,277	84
1916	24,334	97,837	2,781	3,058	128,010			540	158,993	81
1917	32,290	134,788	3,982	4,312	175,362			916	221,187	79
1918	20,665	107,691	4,377	4,193	136,926			529	180,800	76
1919	45,010	199,545	6,554	6,375	257,484			2,901	348,574	74
1920	39,532	174,322	6,376	5,851	226,081			3,068	304,671	74
1921	39,342	151,001	5,305	5,311	200,959			3,560	276,746	73
1922	46,694	212,380	4,854	7,661	271,589			107,171	378,232	72
1923	37,111	183,512	6,417	10,084	237,434			5,146	379,738	63
1924 ¹	37,338	152,320	7,161	8,208	205,027			6,378	386,703	53

¹ Estimated; subject to later revision.

N.B.—We reproduce from Figari's 'The Plantation Rubber Industry in the Middle East' the above table which should prove of considerable interest for reference purposes to many of our readers, who may be also interested to know that the same book estimates the total capital invested in Rubber Plantations in the East at £180,000,000 of which the British, Dutch, Japanese, American, French, Chinese, Danish, and Native holdings are respectively 57.6 per cent, 14.8 per cent, 4.8 per cent, 3.7 per cent, 3.4 per cent, 1.6 per cent, 1.3 per cent, and 12.8 per cent.

COMMERCIAL AND METEOROLOGICAL

I. The Rupee Exchange for the week ending October 24th, 1925

Bank Selling Demand Draft on London

19th	20th	21st	22nd	23rd	24th
18 5/32d.	18 5/32d.	18 5/32d.	18 5/32d	18 5/32d.	18 5/32d.

II. Summary of latest Market Reports and Prices to hand :—

(a) Some of the higher London Prices—

Highest prices realized on the London Market			Average prices obtained for tea			
Mark	Pkgs.	Price	District	Week ending September 26, 1925	January 1 to 26, 1925	January 1 to 26, 1924
TEA (WEEKS ENDING SEPTEMBER 26 & OCT. 3)		s. d.		s. d.	s. d.	s. d.
(a) <i>Anamallais</i> —			N. India	1 6 30	1 4 93	1 6 28
High Forest	103	1 5	S. India	a1 3 64	b1 5 34	c1 6 33
Sholayar	82	1 4 ³ / ₄	Ceylon ..	1 8 22	1 7 48	1 8 04
Pannimade	171	1 3	Java ...	0 11 05	1 0 66	1 2 79
(b) <i>Central Travancore</i>			Sumatra	1 7 14	1 4 22	1 5 05
Stagbrook ...	95	1 5 ¹ / ₂	Nyassa-land	1 0 57	1 1 05	1 4 33
Bonami	75	1 5 ¹ / ₂	Total	1 6 41	1 5 42	1 6 53
Twyford and Ashlev	151	1 4 ¹ / ₂				
(c) <i>Coorg</i> —			Average prices obtained for tea			
Glen Lorna	102	1 1 ¹ / ₂	District	Week ending October 3, 1925	January 1 to October 3, 1925	January 1 to October 3, 1924
(d) <i>Kanen Devans</i> —				s. d.	s. d.	s. d.
Kauniamallay	150	1 6 ¹ / ₄	N. India	1 5 71	1 4 96	1 6 48
Madupatty	158	1 5 ¹ / ₂	S. India	**1 3 09	†1 5 30	††1 6 44
Sevanmalai	209	1 4 ¹ / ₄	Ceylon	1 8 73	1 7 52	1 8 12
(e) <i>Mundakayam</i> —			Java	1 0 03	1 0 65	1 2 85
Yendava ...	158	1 2 ¹ / ₄	Samatra	1 1 84	1 4 14	1 5 20
Kadamankulam	115	1 1 ¹ / ₄	Nyassa-land	Nil	1 1 05	1 4 33
(f) <i>Nilgiris</i> —			Total	*1 6 03	†1 5 44	††1 6 69
Craigmore	163	1 9				
Prospect	268	1 8 ¹ / ₄				
(g) <i>Nilgiri-Wynaad</i> —						
Daverashola	150	1 3 ¹ / ₄				
Barwood ...	95	0 10 ¹ / ₂				
(h) <i>South Travancore</i> —						
Mahendragiri	105	1 2 ¹ / ₂				
Merchiston	93	1 2				
(i) <i>Wynaad</i> —						
Chuhika	104	1 1 ¹ / ₂				
Elstone	80	0 11 ¹ / ₄				
Erramaculla ...	165	0 10 ³ / ₄				

aBased on 5,133 pkgs.

** Based on 5,537 pkgs.

* Based on 90,485 pkgs.

b " " 137,634 "

†† " " 143,171 "

† " " 2,361,516 "

c " " 109,274 "

†† " " 112,771 "

† " " 2,183,376 "

(b) *Precis of reports on London Markets received on October 26 and covering the week ending October 3 :—*

(1) *Tea.*—As the averages on the previous page indicate the number of packages of South Indians offered during the week under review topped the 5000 mark by a considerably larger margin than was recorded the week before. We have to go back to August to find anything like this quantity of South Indians on sale. The market was active; but, while the good liquoring and tippy teas sold at an advance, and medium sorts fetched previous prices, the inferior teas only sold at a decline which averaged about a $\frac{1}{2}d.$ in the case of teas between $1\frac{1}{2}d.$ and $1\frac{1}{4}d.$ and even more in the case of teas below the former price. As a consequence the South Indian average was over $\frac{1}{2}d.$ down.

(2) *Rubber.*—The tendency, commented on last week, towards a hardening of the forward position was still manifest during the week under review; and the closing quotations were $3/6d.$, $3/3d.$ and $2/10\frac{1}{2}d.$ for 'Spot', October-December, and January-March respectively—as against the $3/6d.$, $3/1\frac{1}{2}d.$ and $2/10d.$ which we recorded last week.

(3) *Coffee.*—No East Indian Coffee was put up at the auctions; where the offerings were chiefly Kenyan, and except for the finest qualities evoked little interest on the Buyers' part.

III. Weekly Rainfall Statement

From April 1, 1925, up to and including Saturday, October 24, 1925

Stations are arranged in order approximately south to north and those not in planting districts are shown in small capitals.

Stations	W.	P.	Total	Stations	W.	P.	Total
1. Kalthuritty.	1·43	78·19	79·62	17. Coonoor ...	3·61	21·67	25·28
2. Tenmalai ...	0·88	80·92	81·80	18. Kotagiri ...	N.R.	27·36	N.R.
3. Mundakayam.	1·61	137·22	138·83	19. Ootacamund	0·55	33·48	34·03
4. Peermade...	1·97	157·15	159·12	20. Yercaud ...	0·34	34·97	35·31
5. V'periyar ...	0·78	67·43	68·21	21. Devala ...	0·33	123·32	123·65
6. Kalaar ...	1·40	195·18	196·58	22. Gudalur ...	1·12	67·06	68·18
7. Chittuvurrai	2·97	28·68	31·65	23. CALICUT ...	0·49	116·18	116·67
8. BODI'KANUR	2·02	N.R.	N.R.	24. Kuttiyadi ...	0·79	157·41	158·20
9. COCHIN ...	0·56	88·66	89·22	25. Vayittiri ...	0·67	N.R.	N.R.
10. Mooply ...	0·80	92·99	93·79	26. Manantodi...	0·64	101·89	102·53
11. Pachaimalai	0·98	113·06	114·04	27. Billigiris ...	0·08	50·61	50·69
12. Mudis ...	N.R.	N.R.	N.R.	28. Sidapur ...	0·07	64·37	64·44
13. POLLACHIE.	0·73	17·05	17·78	29. Somwarpett	0·68	73·45	74·13
14. Manjeri ...	1·43	106·76	108·19	30. Ballupete ...	0·03	67·79	67·82
15. Nilambur ...	N.R.	92·08	N.R.	31. MANGALORE.	0·77	134·52	135·29
16. Naduvattam	1·04	75·02	76·06	32. MADRAS ...	5·08	23·51	28·59

W = During the week.

P = Previously.

N.R. = No return.

The Planters' Chronicle

Recognized as the Official Organ of the U. P. A. S. I. (Incorporated)

Managing Editor's Postal Address : POST BOX 155, MADRAS

Do. do. Registered Telegraphic Address : UPASI, Madras

VOL. XX, NO. 45] SAT., OCTOBER 7, 1925 [PRICE, AS. 8

CONTENTS

	PAGE		PAGE
Editorial Notes ...	815	District Association Meetings—	
Tea in Kenya ...	817	Mundakayam ...	827
Labour Depr.—Cooly Census	819	Shevaroy ...	830
Export of Indian Manures ...	820	Wynaad ...	831
U.P.A.S.I. Sports Club—		South Coorg Notes ...	833
February 'Week' ...	826	Eothen's Monthly Market	
		Notes ...	834
		Commercial and Meteorolo-	
		gical ...	837

EDITORIAL NOTES

This issue will reach our Readers just before Armistice Day. General journalism will of course dwell fully on the twofold *Armistice day* commemorative and inspirational significance with which, at any rate for the British Empire and its Allies, November 11, 1918, and its anniversaries have been vested for all time.

But we feel that even a technical paper may quite fittingly refer to the occasion in a short but sincere note. The twofold significance of the day is the aspect which we would particularly stress. 'They died that we might live.' There is the call to pay a solemn tribute; there is also the call to lead a patriotic life. This consideration helps, we feel, to resolve the difficulty which—judging by the Daily Press—moralists fell regarding elaborate social functions on Armistice Night. The tribute rendered; there is still the call to obey. And festive celebrations; inasmuch as they

bring relaxation to ordinarily uneventful lives which, without it, might easily become blasé and 'stale'; surely make people fitter to respond to that call, and are therefore appropriate fixtures for Armistice Day.

What's in a name? Sometimes much. We like for instance, we hope without undue license, to think of the patronymic of the *The Viceroy-Elect* Viceroy-elect as a reminder of what he has been able to do for Forestry and Agriculture in Great Britain, and as an earnest of what we trust he will be able to do for them here. The Rt. Hon'ble E. L. F. Wood, who is now 44, entered Parliament in 1910 and has been Minister of Agriculture in Mr. Baldwin's Cabinet for the past 12 months. His intimate and practical acquaintance with the problems of farming and rural life made him particularly suitable for this Cabinet appointment; and should also prove most valuable in his new sphere—where inadequate appreciation has for long been the bane of the Agriculture Departments which, we believe, were Lord Curzon's creation; and which, we know, were his especial care.

We are asked by the Director of the Labour Department to invite the particular attention of our readers to the notice appearing on page 819, regarding the Cooly Census to be held on November 19th, 1925.

We offer our sincere condolences—particular to Mrs. Rahm, her son, and relatives, and generally to the Shevaroy Planting Community—on the untimely and sudden death of Mr. W. Rahm which occurred at Yercaud on the 26th ultimo at the age of 56. His loss will leave a gap in Shevaroy Planting and Social circles which it will be very difficult to fill.

The Planting Community were also left the poorer last month by the deaths of Mrs. Ellen Reed, the Widow of Charles Yates Reed (the first Honorary Secretary, we believe, of the Wynaad Planters' Association circa 1861) who died on the 17th at the age of 84; and of Mr. A. Harman of Quad Hotlow, Koppa, who succumbed on the 22nd, at the early age of 27, to injuries sustained through his motor car running over the parapet of a bridge.

Our readers will be glad to hear that the General Scientific Officer, U. P. A. S. I., expects to resume charge of his Office on January 1, 1926. We understand that, while on furlough, he has found one who has decided to throw in her lot with his; and we are quite sure that the Planting Community will afford a very hearty welcome to him and his Bride.

We were very pleased to receive this week a visit from Mr. G. M. Frattini who, many of readers will remember, held the post of Assistant Scientific Officer to the U. P. A. S. I. in Mysore until 1917. He is opening offices in these—'The Mercantile Bank'—Buildings on behalf of the Agricultural Service Bureau for Calcium Cyanamide (commonly known as Nitrolim); and is proceeding this week to the Planting Districts on a tour which, he hopes, will bring him into touch with those who employ, or are thinking of employing, this fertilizer on their estates.

We learn from the September issue of *The Journal of the Ministry of Agriculture* that Artificial Manures could be purchased during the week ending August 12, 1925, for free delivery at the towns mentioned, in lots of not less than two tons, at the following rates per ton :—

Liverpool.—Nitrate of Soda (N. 15½ per cent), Sulphate of Ammonia (N. 21·1 per cent), Basic Slag (T. P. 34 per cent) and Fish Guano (N. 8 per cent, T. P. 18 per cent) at respectively £12½, £12¾, £3, and £13.

Bristol.—Sulphate of Potash (Pot. 48 per cent.) at £12½.

London.—Superphosphate (S. P. 35 per cent) at £3¾.

'N,' 'T. P.,' 'Pot,' and 'S. P.' signify Nitrogen, Total Phosphate, Potash, and Soluble Phosphate.

The Superintendent of the Diocesan Press, who is the publisher of this paper, informs us that he has had printed on Art Paper 30 copies of the photograph of the Upasi Rugger Team which was reproduced opposite page 777 in our issue of October 17; and that, until the supply is exhausted, he will be pleased to forward copies to applicants who send him—Post Box 455, Vepery, Madras—8 annas in stamps to cover postage and packing costs.

We much regret that an erroneous newspaper report led us to give (on page 785 of the issue of October 24) 'Trichur' instead of 'The Mooply Club, Palapilly' as the venue of the Durbar at which Khan Sahib Kilimannil Moidu received his Sanad and Badge.

'TEA CULTIVATION

IN

KENYA COLONY'

This 34 page book—written by Mr. J. W. H. Bradshaw and published (the price is not shown) by the East African Standard, Ltd., Nairobi—gives no information regarding the ascertained potentialities of Kenya as a tea producing country; and unfortunately we cannot refer to a Government Publication to fill the gap, for the latest annual report we have received from the Director of Agriculture in Kenya Colony covers the nine months ending December 31, 1921, and was not published by the Swift Press, Ltd., Nairobi, until 1924!

We have ourselves been able to ascertain, however, that the Imperial Institute in 1909 reported on a sample of tea grown on an estate at Limoru from seed imported from India in 1904. It stated that the tea resembled Indian in the amount of extractive matter and tannin present, but contained an unusually high percentage of caffeine; that the liquor obtained on infusion was of a very fair quality; and that it should be possible to grow tea in the Limoru District with considerable prospect of success.

Further, our readers know that at least one firm has—presumably after investigation on its own account—concurred with the gist of this report; for in our issue of July 25, 1925, we announced that Mr. W. A. Lee was assuming the General Managership of Messrs. James Finaly and Co.'s Kenyan Tea Estates which, we believe, will not be in bearing for some years to come.

Moreover an East African Paper—*Framer's Journal*—announces that Messrs. Brooke Bond and Co. have purchased a large acreage at Limoru on which they intend to plant tea; and are prepared to supply tea seed and expert assistance to any adjacent land owners who are desirous of opening up estates for themselves; guaranteeing—presumably on a commission basis—to manufacture, tea, saleable at a profit, from the resultant crops.

To revert to the book under review. The first twenty-nine pages consist exclusively of a treatise on the subject of Tea in its every aspect from the selection of suitable estate sites to the best method of packing; and, while apparently quite comprehensive and up to date, would not, we think, furnish new ideas or suggestions to any planter who already knows his job. We imagine it must necessarily be very much a synopsis (we imply of course no plagiarism) of Ibbetson's *Tea from Grower to Consumer* (Sit Isaac Pitman & Sons—3s.) which, though we ourselves have not seen it, was reviewed by our predecessor on page 427 of our issue dated June 27, 1925.

The remaining five pages consist of four appendices; the first three of which purport to give respectively the acreage cost of the first year of planting; of the second year of upkeep; and of the third and fourth years at the end of which leaf should be being plucked. Appendix No. 1 indicates the maximum expenditure per acre (apart from the costs of management and upkeep of buildings, and Capital charges such as the purchase of an estate and erection of plant) which should be necessary in the first year. The correct total of the 14 items under which this expenditure is classified is 278s. as against 268s. shown in the book. The book omits to total the nine sub-divisions of expenditure given in appendix No. 2 for the second year, but they amount to 112s. Appendix No. 3 states that the cost for the third and fourth years would be much the same as for the second, but enumerates certain modifications which would probably have to be taken into account. Appendix No. 4 states that on an estate of 550 acres yielding 275,000 lbs. of Made Tea the expenditure on management, upkeep of buildings, upkeep of the estate, manufacture of tea, and sundries should not exceed respectively 2s., 0-03s., 0-2s., 0-35s. and 0-12s. per pound of Made Tea or per 4 lbs. of green leaf.

The Author estimates that the cost of factory and-machinery for an estate of the above size would cost some £ 7,000 f. o. b. England. No indication is given of the c. i. f. Kenyan charge; nor, so far as we can see, of the probable cost of the 550 acres which the author's typical estate is supposed to comprise.

If the author contemplates a second edition, he would do well study the admirable way in which another Kenyan author—Mr. F. H. Sprott—in his *Practical Coffee Planting* sets forth the 'all in' five years' expenses of opening up a coffee estate.

NOTICE
LABOUR DEPARTMENT, U.P.A.S.I.

Cooly Census

To be held on November 19, 1925

The under-quoted letter and duplicate census forms have, this week, been forwarded to the Superintendents of all estates which subscribe to the Labour Department.

If any estate, which is a subscriber to the Labour Department has not received this letter and Census Forms, application for them may be made to the Honorary Secretary of the Local District Planters' Association, all of whom have been supplied with a few spare forms in case they are needed to replace any which may not have reached the addressees.

COIMBATORE,
November 1, 1925.

C. H. BROCK,
Director, Labour Department,
U.P.A.S.I.

(Copy of letter referred to above)

To

THE MANAGER,
-----Estate,

DEAR SIR,

COOLY CENSUS—*November 19, 1925*

At the meeting of the Combined Control Committees held at Ootacamund on 26-3-1925, it was unanimously resolved that the Annual Census of Coolies employed on Estates subscribing to the Labour Department be held on Thursday, 19th November, 1925.

I enclose Census Forms in duplicate, one to be filled in and returned to me, and one for you to retain the copy of your return.

I shall be much obliged if you will have the Census made on that date, 19th November, the form filled in and posted to me in the enclosed envelope that same day if possible or the next day at the latest, as the various Control Committees require all figures to be complete and tabulated before the end of that month to facilitate the preparation of the Labour Divisional Budgets.

I trust you will be so good as to see that the return is made as accurately as possible. A space for 'Remarks' is left for you to make any note or suggestion which will be useful to the Control Committees in arranging for a redistribution of agencies in the new season's budget, or any special requirements, as Control Committees are all anxious to do everything that possibly can be done for subscribers.

OFFICE OF THE DIRECTOR,
LABOUR DEPARTMENT, U.P.A.S.I.,
COIMBATORE,
November 1, 1925.

Yours faithfully,
C. H. BROCK,
Director.

EXPORT OF MANURES FROM INDIA

At the last Annual General Meeting of the United Planters' Association of Southern India, a resolution was passed that the Secretary should obtain and publish in *The Chronicle* figures relating to the export of manures from India.

These duly appeared in *The Planters' Chronicle* of September 26 and October 24. A Note—prepared on the instructions of the Executive Committee, as a survey of the efforts made by the Association in the past to secure some form of Restriction on Export which might tend to conserve indigenous manures for local use—is under the direction of the Chairman reproduced below :—

Conservancy of Indigenous Manures

1893.—Before the U. P. A. S. I. was established a Conference of planters was held at Bangalore in 1893 and the following resolution was adopted :—

' In view of the ever decreasing supply of, and increasing demand—nay absolute necessity—for, bones for manurial purposes; and the corresponding enhancement of the price of the same; and moreover considering that the large community engaged in the cultivation of coffee, tea and other products are chiefly affected thereby; it is resolved that this Conference composed of the representatives of that community view with gratitude the indication manifested by the Government of India to grapple with the question and to place a check on the wholesale exportation of this valuable commodity—which is the chief cause of the increasing short supply and scarcity and use in India of the same—by proposing to levy an export on all bones exported from the country, and we trust that the Government will speedily carry out their intention which will prove to be the best interests of the Agricultural industries of the Indian Empire.'

This resolution was forwarded to the Government of Madras in October 1893; and, by it, to the Government of India in the following month.

1894.—At the first meeting of the U. P. A. S. I. held in September 1894 a resolution was adopted asking that the Government of India would consider it a question of urgency and legislate accordingly with a view to an export duty being imposed.

This resolution like the first was forwarded to the Government of Madras, but under date November 10, 1894, the Association was informed that :—

His Excellency the Governor in Council (Lord Wenlock) is unable to accede to the request of the Planters' Association, and is not disposed to recommend that an Export Duty be imposed upon bones.

1895.—At the Annual Meeting of 1895 the matter was discussed and a certain amount of opposition appears to have arisen, on the grounds that the request of the Association was contrary to free trade principles. No resolution was brought forward on the question at that meeting.

1897.—There is no reference to the subject at the meeting of 1896; but, at the Annual Meeting held in August 1897, Mr. O. Scot-Skirving

brought up the subject again. Although the resolution is not given separately to his speech, it appears to have been :—

That this Association do address Government on the matter to see if a remedy can be devised which can retain the manures for agriculture in this country from which it is now being exported.

This was seconded by Mr. H. G. Parsons of Coorg, but met with considerable opposition. Mr. G. L. Acworth using as his second argument :—

‘ We may address Government till we are black in the face, but we will not get what we want.’

The Hon'ble Mr. Hodgson argued that if bones are going out of the country it is simply because they fetch a better price elsewhere, if we pay the same we can keep them. He did not consider a request of this sort sound. The resolution was carried 15 to 8.

Sometime after the meeting the Secretary asked Mr. Scot-Skirving to put up a line of argument on which to base a letter to Government, but no reply being received to this request the letter was not sent, also in dealing with the Currency question the Association had suggested a general export duty on all exports.

1898.—The matter was again discussed at the meeting held in 1898 but no resolution was passed.

1906.—From then, no further reference to the matter appears till the Annual General Meeting of 1906 ; when the session devoted to Agricultural Science was attended by the Chief Commissioner of Coorg, the Commissioner and District Magistrate of Coorg, the Collector of the Nilgiris, Mr. Sly, I. C. S., Inspector-General of Agriculture, India, Dr. Walter Leather, Agricultural Chemist to Government of India ; Dr. Lehmann, Agricultural Chemist to Government of Mysore and representatives from Messrs. Parry & Co. ; Binny & Co. ; Arbutnot & Co. ; A. J. Saldanha & Sons ; Matheson & Co. ; Mr. J. Cameron and others. The matter of export of bones was raised by Mr. A.D. Jackson of Messrs. Parry & Co., but the chief discussion was regarding guaranteed analysis of Manures and a proposed Fertilizers Act. Mr. Sly on behalf of the Government of India did not consider legislation necessary, and that planters could themselves effect what they wanted without it. No resolution was passed.

1909.—In 1909 the question was raised again at the Annual Meeting when Messrs. Parry & Co.'s representative pointed out that the demand for bonemeal in India was a drop in the ocean compared with the amount that was exported. No resolution was put.

1911.—In 1911 the matter received much more careful attention, and in the course of the debate the attitude of the Government of the day is clearly given :—The Government of India were not prepared to take steps to arrest the exportation of oilseeds and their products, and had decided after enquiry not to discourage the Indian agriculturist from utilizing the oilseed products in the manner which he considered most profitable to himself. As regards bones, while pointing out that the cause of their being so little used was due more to want of cheap sulphuric acid than to the export trade, Government did not consider themselves justified in interfering with the trade, and that to stop the export of bones on the ground of their manual value would be decidedly premature.

The following resolution was carried :—

'That negotiations be entered into with the principal suppliers of manures directed towards ascertaining the best means of discouraging the export of manures from India and of encouraging the manufacture of superphosphates, and that on sufficient information having been gleaned, and in view of the increased demand for, and increasing prices of, both bones and oil-cakes for manurial purposes in Southern India, and in view of the discouragement of Government's own effects to induce agriculturists to adopt and extend the use of these fertilizers by the difficulty and cost of obtaining them, the Secretary do write to the Government of Madras asking them to give the matter their sympathetic consideration and to recommend to the Government of India the placing of an export duty on both articles, and so supplement the helpful attitude the Supreme Government has already assumed by exempting all manures from the import duty leviable under the Indian Tariff Act.'

In the course of the debate it was also mentioned that the export of oil-cake was not increasing but that of oil seeds was, owing to the German tariff working against the importation of *poonacs* as the Germans wanted to do their own crushing.

1912.—The matter is not mentioned in the annual report of the following year and what the result of the attempt to attack the matter through the suppliers of manures was is not clear, but at the meeting of 1912 the question was again considered. Mr. Anstead explained that he had brought the matter up at the meeting of the Board of Agriculture 'but the case was hopeless from the outset.' He was asked,—'If an export duty were put on bones would planters in Southern India take the balance and use them?'—The balance came to something enormous, and he had of course to say 'No'. He was then asked why he wished to interfere with an established trade. That was the line adopted.

1913.—The meeting then appointed a small Committee consisting of Messrs. E. F. Barber, E. L. Mahon and R. D. Anstead to go into the matter of the export of indigenous manures, and submit a report before the next meeting. This Committee reported to the Annual Meeting held in 1913 as follows :—

'Your Committee after considering the question of the export of bones and indigenous fertilizers, is of opinion that this Association should request the Board of Agriculture in India not to lose sight of the importance of cheap manures to all classes of agriculturists, and suggests for its consideration the imposition of an export tax on indigenous fertilizers as we are of opinion that such a tax, even if it fail to reduce the local price, will provide funds which could be devoted to the encouragement of both the manufacture of superphosphates and the oil crushing industry. We should like to see a Resolution passed at this Meeting, which will give effect to our suggestions.'

The report was adopted.

1919.—In 1919 the Association through Mr. Anstead, its representative, approached the Board of Agriculture of India, which represents the Agricultural Departments of India and Burmah; and on December 1, the Board passed resolutions agreeing that at all costs the drain of the indigenous manures of India must be stopped.

1920.—In 1920 the Mysore Planters referred to the matter in their interview with the Viceroy who informed them that the subject had been

discussed by the Board of Agriculture, and would be considered by the Government of India on the Board proceedings.

1921.—In 1921, at the Annual Meeting, the Association passed the following resolution:—

‘That this Association having since 1893 persistently urged upon Government the necessity for conserving indigenous measures in the country, and having again and again asked for the imposition of an export tax on bones, wholeheartedly endorses the Resolutions No. 7 and 8 passed at the Eleventh Meeting of the Board of Agriculture in 1919, viz.:—

No. 7. That the Committee’s proposal regarding the imposition of an export tax on oilseed and cakes be accepted.

‘No. 8. That as far as bone and fish manure are concerned, total prohibition of export is necessary.

The Association recognizes that the proposals are made with a view to conserving India’s fertilizers for India’s good, with which policy the Association is, as ever, unreservedly in accord, and with a view to strengthening the case for immediate action to carry out the same, a matter of paramount importance, the Association hereby instructs its Secretary to communicate this resolution to the Government of India.’

This resolution was sent to the Government of Madras for transmission to the Government of India, and representations were made direct to the Indian Fiscal Commission which was then considering the question of the Tariff policy of the Government of India.

1922.—In February 1922 the Board of Agriculture discussed the matter very fully; with the result that the resolutions of 1919 were reserved and the Board was opposed to the proposed export duty on oil seeds and ammonium sulphate owing to the danger of a gap occurring between the restriction of export and the development of consumption in India to an extent sufficient to absorb the whole of the oilseeds produced in the country. It was of opinion that such a gap might result in serious trade dislocation which would react on the producer. As regards the export of bones the Board asked the Government of India to appoint a small committee to frame a constructive policy for the retention of India’s manurial resources.

In the Report of the Indian Fiscal Commission issued in 1922 it is stated:—

‘We have also received proposals that the export of manures should either be prohibited or discouraged by the imposition of a heavy export duty. From this point of view an export duty on oilseeds has been advocated in order to retain within the country the oil-cake which has a high manurial value. The other manures referred to are bone and fish manures. The advocates of this policy do not always stop to consider what would be the probable result. It is assumed that if the export of manures is stopped the manures which are not exported will be used in India. But this assumption is one that cannot safely be made. There are at present two main obstacles to the increased use of manure by Indian cultivators. In the first place the cultivators are sometimes prejudiced against the use of a particular kind of manure or have not been educated up to an appreciation of its value. In the second place and this is the more important

the cultivator is usually not in an economic position to be able to afford to use artificial manures. It is difficult to see how the prevention of export of manures will remove these two obstacles. Prejudice or ignorance will give way only to teaching and experience. On the economic side it may be argued that an export duty will reduce the price of oil-cake for instance and consequently will stimulate its use by the cultivator. But it must not be forgotten that the reduction in the price of the oil-cake would be effected at the expense of the producer of the oilseeds and that therefore this potential user of the manure would be impoverished and might not be able to afford to use it even at the reduced price. Further if the manure is cheapened to such a degree as would be likely to stimulate its consumption largely it is probable that production would diminish owing to decreased profits and eventually 'prices would again be raised. We consider that under present conditions any action of this nature would merely waste a source of wealth in India without ensuring any compensating advantage. At the same time we fully realize the importance of encouraging the use of manures in India and we think that a small cess might possibly be placed on the export of manures on condition that this cess should not go into the general revenues but should be devoted to the encouragement of the use of manures. We need hardly say that the cess we contemplate would be at such a low rate that there would be no possibility of its discouraging in any way the export of manures.'

1923.—At the Annual Meeting of 1923 the following resolution was moved it being explained with the object of trying to reach what was wanted by a new channel :—

'That this Association adheres to its views, as expressed in the resolution passed at the General Committee Meeting in August 1921 regarding the export of indigenous fertilizers from India with the consequent continued impoverishment of the productive capabilities of the land and in view of the declaration by the Board of Agriculture for India that the matter is one in which they cannot or will not move—hereby determine that the Commission on Tariffs, which is now touring India, be approached by the Executive Committee and asked to carefully examine the whole question with a view to obtaining the retention of these materials so vital to the welfare of the country by means of the levy of an export duty or some other practical measure which would prevent or appreciably reduce the present loss.

(It does not appear to have been realized at the meeting that the Secretary read out the decision arrived at by the Commission who had issued their report on September 22 in the year previous.)

Mr. Anstead explained that although they managed to get a resolution passed by the Board of Agriculture agreeing with the Association's view the Board subsequently went back on it and turned the suggestion down. 'This year again I put the matter before the Board and they said they were not going to touch it any more.'

1924.—The Association asked the Board of Agriculture to reconsider the matter of export of fertilizers, and at a meeting of the Board held in January 1924 the Association sent two representatives and a resolution was passed asking the Government of India to appoint a Committee to consider the whole question of the retention in the country of indigenous manures and to suggest methods which would lead to that result.

1925.—To complete the file, the following is the resolution passed this year :—

'In view of the importance of manures in relation to the agricultural interests of India that this meeting instructs the Secretary to obtain figures showing the amount of manure exported from India annually with a view to re-opening the subject of the restriction of export of manures from India to the detriment of Indian Agriculture.'

In accordance with the resolution a statement as to the export of Indigenous Manures from 1919, the year after the close of the war and the re-establishment of commerce, was published in the *Chronicle*, page 724 of the issue of September 26, and a further statement as to the export of oilseeds on page 796 of the issue of October 24.

No information has been received as to the establishment of the Committee for which the Board of Agriculture asked in 1924, but the result of that resolution will probably be made known at the meeting of the Board to be held at Pusa in December next.

This Note is put up in order that the Executive Committee may explore the whole question afresh with a view to studying the channels for re-opening the matter on a new line.

The foregoing Note will show that the Association has endeavoured to get its views accepted through the Governments of Madras and India, the Viceroy, Inspector-General of Agriculture, the Board of Agriculture, the Suppliers of Manures and the Indian Fiscal Commission, but as time goes on the proposal to impose an export tax is met by more and more weighty arguments against such a measure.

It has been suggested that the introduction of crushing machinery should be encouraged with a view to the retention of *poonacs* in the country, but this seems to be a matter more for the Industries Department than the U.P.A.S.I., and it is understood that the most up to date Mill for the crushing of oilseeds has not proved a financial success.

In considering this question the further point must be taken into consideration of the tariffs in force in Austria, Germany, Italy, France, Japan, the United States and Australia, all framed with a view to discouraging the import of vegetable oils except in the form of oilseeds. Figures later than 1921 are not available but from these the following examples are quoted :—

In France.—Groundnut seed was imported free of duty, but the duty payable on 8 cwts. of oil, the equivalent of one ton of nuts, was 480 francs.

In the United States, the duty per ton of castor seed was 672 cents and on 8 cwts. of oil 1195 cents.

In Germany duty on one ton of rape seed was 50 marks and on the equivalent of oil 122 marks.

These examples can be supplemented by figures as to other countries and other oils and seeds.

H. WADDINGTON,

October 19, 1925.

Secretary.

U. P. A. S. I. SPORTS CLUB

Planters Week, February 1926

ADVANCE PROGRAMME

Liabie to such alterations as may be found necessary

Date	Day Events	Night Events
Sat. 20th	GOLF—Inter District (commences) TENNIS—Inter District (commences)	Vacant.
Sun. 21st	GOLF—Inter District (Final in afternoon) TENNIS—Inter District (continued) Ladies 'MURPHY' Cup (commences).	Vacant
Mon. 22nd	TENNIS—Inter District (finishes) Ladies 'MURPHY' Cup (continued) Mens 'HARPER' Cup (commences)	Subn. Dance at Woodside
Tues. 23rd	TENNIS—Murphy and Harper Cups (finish) PRIZE DISTRIBUTION—Golf House, 5.30 p.m. ANNUAL GENERAL MEETING—Golf House, 6 p.m.	Entertainment or Dance at Assembly Rooms
Wed. 24th	CRICKET	MURPHY BALL at Woodside
Thurs. 25th.	CRICKET CHILDREN'S FANCY DRESS—Woodside, 4p.m	'REVUE' at Assembly Rooms
Fri 26th	CRICKET—Planters v. M.C.C.	Fancy Dress Ball at Assembly Rooms
Sat. 27th	CRICKET—Planters v. M.C.C.	M. C. C. Dinner and Entertainment at Assembly Rooms
Sun. 28th	CRICKET GOLF—Planters v. M.C.C. (Morning)	Vacant

Special Notes

All will be very glad to hear that Mr. J. J. Murphy will be 'At Home' again this year, and will give a dance at Woodside, similar to the one given by him last year, and which was so much enjoyed.

Golf.—There will be no qualifying round this year. All districts will play off.

Tennis.—'Murphy' Cup conditions (republished):—

1. The competition shall be open to all Lady members of the Planting Community and shall take place in Ootacamund during Planters' Week.

2. It shall consist of open singles, each match to be the best of three sets.

3. The Cup shall become the property of the Lady who wins the competition three years in succession, or four times in all.

4. A miniature cup will be presented each year to the winner.

5. In the event of any dispute arising, the matter shall be put before the U.P.A.S.I. Sports Club Committee, whose decision shall be final.

Cricket.—February 26 and 27 have now been fixed with the M.C.C.

February 24 and 25 will be one day matches against Wellington Gymkhana Club and an Indian Team of the Nilgiris.

February 28 (Sunday), the last day of the Meet, is reserved for a Planters' scratch game, should we not be able to make a fixture with any other outside team.

Reference Committee meeting proceedings of September 20 last, it was decided that inter-district cricket was not possible at present, but that owing to the request made last year that there should be more cricket, the Committee hope that sufficient cricketers will come to the Meet to make two teams. All will get at least two games, and the pick will be chosen to represent the Planters against the M.C.C.

G. W. FULCHER,
Honorary Secretary.

November 1, 1925.

MUNDAKAYAM PLANTERS' ASSOCIATION

(INCORPORATED)

Proceedings at the 3rd (1925-26) Quarterly General Meeting held at the Mundakayam Club on Wednesday, October 14, 1925, at 2.30 p.m.

Present

Messrs. G. McPherson (*Chairman*), R. Harley, J. R. Vincent E. J. Thom, J. C. M. Caruth, O. J. Egan-Wyer, F. Hawkings, J. S. P. Symons, E. S. Conner, M.C., H. B. Macpherson and M. S. Calderwood (*Hon. Secretary*).

Notice.—The Honorary Secretary read the notice calling the meeting.

1. Minutes

Minutes of the Committee of Management Meeting held on September 30, 1925, were taken as read and confirmed.

2. U. P. A. S. I. Annual General Meeting.—Delegate's Report.

The Chairman intimated that the Books of Proceedings would be in the hands of members within the next week. He called on Mr. Egan-Wyer who said he had nothing to add to the published report, but was ready to answer any questions. Some queries were put and Mr. Egan-Wyer having replied, the Chairman called for a very hearty vote of thanks to our delegate Mr. Egan-Wyer for attending the meeting and for the time and trouble it had cost him, which was accorded with acclamation. Mr. Egan-Wyer thanked the members present for having appointed him as the Association's Delegate.

3. Visit of H. E. the Governor of Madras, and the Viscountess Goschen

Final arrangements for the reception of Their Excellencies were agreed upon. The Chairman submitted as a recommendation by the Committee of Management the proposal to request estates to contribute Re. 1 per fifty (planted) acres towards meeting the expenses of the visit—the balance to be met out of the general funds.

The following resolution was then put from the Chair and passed *nemine dissente* :—

'That Estate Managers and Superintendents be asked to contribute Re. 1, per fifty planted acres, in part payment of the expenses of the visit of His Excellency the Governor to Mundakayam.'

4. Subscriptions

(a) *U.P.A.S.I. Sports Club*.—The Chairman intimated that copies of rules had been circulated, and appealed to members to pay up their subscriptions. Mr. H. B. Macpherson, District Representative, appealed for a larger membership, and enrolled Messrs. Egan-Wyer and Caruth as new members. A discussion was raised on the question of the limitation of payment of travelling expenses to those whose salary was less than Rs. 500; the Honorary Secretary suggested that recommendations for the payment of expenses should be left to the discretion of the District Representative. Mr. Macpherson promised to take up the matter with the Sports Club Committee.

(b) *S.I.P. Benevolent Fund*.—The Chairman intimated that subscriptions to the S.I.P. Benevolent Fund were now due; and appealed to members to support this fund as numerously and readily as they did last year and assist the Honorary Secretary by sending him their subscription as soon as possible.

(c) *Peermade Churchyard Fund*.—The Chairman informed the meeting that only Rs. 112 had been subscribed this year to the Peermade Churchyard Fund as against Rs. 149 for last year. Discussion resulted in the suggestion that estates should be asked for a small subscription; finally the following resolution was moved from the Chair :—

'That the Honorary Secretary write round to Managers of Estates and ask them to contribute Rs. 10 annually from their estates to the Peermade Churchyard Fund.'

Carried unanimously.

5. Election of Delegate to the Sri Mulam Popular Assembly, 1926

The Chairman moved :—

'That Mr. F. Hawkins be asked to attend the ensuing session of the Sri Mulam Popular Assembly as this Association's Representative.'

The resolution was carried unanimously and Mr. Hawkings kindly agreed to act.

With the permission of the meeting the Honorary Secretary introduced the matter of Sri Mulam subjects :

No. 1. *Vellanadi-Cheruvally Road*.—Proposed by Mr. J. R. Vincent and seconded by Mr. R. Harley :—

‘ That the Sri Mulam Delegate press for the construction of the Vellanadi-Cheruvally road.’

Carried unanimously.

With reference to the same subject Mr. Vincent proposed, seconded by Mr. Harley :—

‘ That the Honorary Secretary communicate with the Agents of the estates through which the new Vellanadi-Cheruvally Road will pass, with a view to their foregoing any compensation for the land taken up in the construction of the road, as it is anticipated this would favourably influence Government.’

Carried unanimously.

No. 2. *Cattle Pounds*.—Proposed by Mr. H. B. Macpherson, seconded by Mr. Egan-Wyer :—

‘ That the second subject should be new Cattle Pounds on estates ’.

Mr. Vincent pointed out that this subject had already been taken up and was under consideration by Government and that it was not advisable to try to rush them. Having regard to this, Mr. Macpherson withdrew his resolution and it was proposed from the Chair :—

‘ That the second subject be left to the Committee of Management to decide, with a request to members who have suggestions to put forward to send them to the Honorary Secretary.’

Carried unanimously.

6. Correspondence and any other Business

(a) Read letter from the Secretary, U.P.A.S.I., *re* personal members. Honorary Secretary was instructed to say that we are not interested and do not find it necessary to alter the Articles of Association.

(b) Read letter from the Secretary, U.P.A.S.I., *re* Planters' Trustee on Cochin Port Trust. Honorary Secretary was instructed to say that this Association was agreeable to the rule that the U.P.A.S.I. Trustee should be elected by the Executive Committee, provided an undertaking was given that only a planter should be appointed.

There being no further business the meeting terminated with a vote of thanks to the Chairman and Honorary Secretary.

(Sd.) M. S. CALDERWOOD,
Honorary Secretary.

(Sd.) G. McPHERSON,
Chairman.

SHEVAROY PLANTERS' ASSOCIATION

(INCORPORATED)

**Minutes of an Extraordinary General Meeting held at the Victoria Rooms,
Yercaud, on Thursday, October 22, at 1.30 p.m.**

Present

Captain E. H. A. Travers Drapes (*Chairman*), Mrs. V. A. Lechler, Rev. Fathers, M. Cappelle and Faisandier, Messrs. W. Rahm, E. H. Gilbey, S. Singaram, J. Singaram, A. H. Butler, E. B. Knox, P. J. Watts, H. S. Dyer, F. W. Pegg, C. Rahm, L. E. T. Short, C. L. Hight, C. D. Ryle, N. M. Hight, V. L. T. Drapes, B. A. R. Kandaswamy Chettiar, and Mr. W. A. Rahm (*Honorary Secretary*).

Before opening the meeting the Chairman welcomed eight new members bringing with them 170 acres of rubber and 830 acres of coffee into the Association.

1. Notice calling the meeting was read.
2. Read and confirmed proceedings of the Extraordinary General Meeting on July 23, and the Special General Meeting on September 10.

3. Delegate's Report

The Delegate's Report on the 32nd Annual General Meeting was read. Proposed by Mr. C. D. Ryle and seconded by Mr. V. L. T. Drapes 'That the Delegate's Report be adopted'. *Carried 'nem con'.*

Proposed by Mr. B. A. R. Kandaswamy Chettiar and seconded by Mr. N. M. Hight 'That a hearty vote of thanks be accorded to the Chairman and the Honorary Secretary for their trouble in coming forward to represent this Association at the Annual General Meeting of the U. P. A. S. I.

4. Delegates' Expenses

Proposed by Mr. B. A. R. Kandaswamy Chettiar and seconded by Mr. R. A. Gilbey: 'That Rs. 300 be sanctioned for Delegates expenses to the 32nd Annual General Meeting of the U. P. A. S. I.' *'Carried nem con.'*

5. Labour Laws

Extension of Act 1 of 1903 was discussed in Committee.

Standing Labour Committee

The following were elected as the Standing Labour Committee of the S. P. A. :—

Rev. Fr. Cappelle, Messrs. C. D. Ryle, P. J. Watts, N. M. Hight, B. A. R. Kandaswamy Chettiar. The Chairman and Honorary Secretary being ex-officio Members.

Instructions were then given to the Standing Labour Committee on the following :—

- (1) Advances, (2) Rates of pay, (3) Bonus, and (4) Legal.

6. Trustee on the Cochin Port Trust

Resolved that this Association is in favour of delegating the Election of the Trustee to the Executive Committee of the U. P. A. S. I. *Carried.*

Personal Members' Subscription

Resolved that this Association do not reduce the rate of subscription for Personal Members. *Carried.*

The meeting terminated with a vote of thanks to the Chair.

W. A. RAHM,
Honorary Secretary.

E. H. A. TRAVERS DRAPES,
Chairman.

WYNAAD PLANTERS' ASSOCIATION

(INCORPORATED)

**Proceedings of an Extraordinary General Meeting held at Meppadi
Club on Wednesday, October 28, 1925, at 2.15 p.m.**

Present

Mr. B. M. Behr (*Chairman*), Messrs. J. E. Bisset, B. St. J. Boulton, W. G. Craig, H. C. Davies, T. P. Gauld, J. A. Gwynne, M. W. Mackay, L. R. Peachy, S. H. Powell, C. A. Rendle, W. Reynolds, E. C. Sheward, J. Strachan, R. P. N. Swayne, R. Panton Wells, I. W. Finlayson (*Honorary Secretary*).

Visitors

Messrs. R. W. M. Hay, H. Morrow.

The notice calling the meeting was read.

1. Owing to the resolution passed at the last meeting, to alter No. 8 of the Articles of Association, not having been confirmed within the proper time, it has become null and void and is therefore deleted from the minutes.

With this alteration the minutes of last meeting were passed.

**2. Report of the Delegate to the Annual
General Meeting, Bangalore**

The Chairman gave his report as delegate, and afterwards answered several questions regarding the meeting at Bangalore. The meeting gave a hearty vote of thanks to Mr. Behr for taking the trouble to go to Bangalore and represent the Association at the Annual General Meeting.

3. Planters' Trustee on the Cochin Port Trust

Mr. Gwynne proposed. 'That the Association's Trustee on the Board of Trustees of the Cochin Port Trust shall be elected by the active members of the Executive Committee, U.P.A.S.I., by postal vote, and that a Trustee-in-waiting be nominated at the same time.

Mr. Davies seconded.

Carried unanimously.

4. Legal

The Honorary Secretary put before the meeting details of a law case regarding defaulting coolies of Arrapetta Estate. The matter was fully discussed but no resolution was brought forward.

5. Roads

The Chairman read a précis of the correspondence between the District Board and himself on the subject of roads and gave figures to the meeting, of the amounts to be spent on the roads in the current year.

Chundale-Sholadi Road.—Mr. J. E. Bisset proposed: 'That this Association strongly advise the purchase of a motor roller for the use of this road.

The want of a roller at present is badly felt, as the metal lately put down has not been properly rolled in, and the full benefit has not been obtained.'

Mr. J. A. Gwynne seconded.

Carried unanimously.

The Chairman promised to interview the District Board Engineer at Calicut.

Proposed from the chair 'That this Association support the Nilgiri-Wynaad Planters' Association in their efforts to get the Nadghani Ghaut reopened, and for the improvement of the roads in the District generally.'

Carried 'nem con.'

6. Labour

Mr. Gauld brought up the point of paying commission to estate gang coolies at the end of their period of contract. The Association was of opinion that this should be allowed. The members of the Control Committees informed the meeting of matters connected with their respective divisions.

Passages to Wives of European Employees of the Labour Department.—After discussing this matter, it was proposed from the Chair that further consideration of the matter be postponed to the end of the current year.

Carried 'nem con.'

7. Cumblies

The matter of supply of cumblies was discussed.

8. Other Competent Business

Plague in Meppadi.—Mr. Swayne brought up this matter and asked for information which was given by the Chairman.

The Chairman informed the meeting of the steps that had been taken by the Collector and the local authorities to stamp out the outbreak. It was hoped that this had been effected. The last two contacts had been segregated and were being carefully watched.

The Chairman informed the meeting that he would be going to Calicut very shortly; and would see the Collector, and ask for full powers for the Special Plague Officer to enforce inoculation of contacts.

Correspondence.—Read letter from Madura Co., Ltd., Cochin, on the subject of a tea market for Southern India.

Read letter from the D. S. P., North Malabar, regarding the obstructions of the roads by the bullock cart, and giving numbers of cartmen recently prosecuted.

The meeting then closed with hearty vote of thanks to the Chair.

(Sd.) IAN. W. FINLAYSON,
Honorary Secretary.

(Sd.) B. M. BEHR,
Chairman.

SOUTH COORG NOTES

Hockey Tournament

The following are the results of the Hockey Tournament which was played at the South Coorg Gymkhana Ground, Pollibetta, on the 25th, 26th, 27th and 29th of last month :—

First Round	Second Round	Final
1. Gonicopal Union (Scratched).		
2. Victoria Club V'Rajpet 'B'.		
3. South Coorg Athletic Union drew with.	S.C.A.U. beat V.C.V'R. 'B' (4-0) on 27-10.	S.C.A.U. beat V.C.V'R. 'A' (4-2) on 28-10.
4. Forest Sports Club, (2-2) on 25-10, but beat them (7-1) on 26-10.		
5. Victoria Club V'Rajpet 'A'.		
(BYE).		

The first match was played on Sunday evening in threatening weather. A late start was made. Play was very even for the first half. An unfortunate accident to one of the Forest players necessitated medical aid. In the second half play was very fast, and Forest team were leading by two goals to one, almost up to the last minute, when the Union equalized. Owing to the bad light, extra time could not be played, and the game was arranged for the next day.

At the re-play on Monday the same teams faced each other, and a very fast game resulted in South Coorg Union team running out the winners by seven goals to one, and qualifying to play the V'Rajpet Victoria 'B' team. The Gonicopal Union Team found themselves unable to raise a team, and had to scratch.

The match on Tuesday evening—South Coorg Athletic Union *versus* V'Rajpet 'B' team—attracted quite a number of spectators. The weather kept fine. The Union played one man short throughout the first half. The game was keenly contested. Half time arrived with a blank sheet. In the second half the Union put on four goals to nil, and won their match; qualifying to play in the final against 'A' team V'Rajpet on the 29th instant.

Final.—South Coorg Athletic Union *versus* V'Rajpet 'A' team. Weather looked threatening. A large number of spectators had arrived to see this final. Play was of a very even nature up to half time, with a slight advantage in favour of the Union, who led at half time by two goals to nil. On changing over, the 'A' team rushed the Union and scored a goal in quick time. The Union responded with another, making the score 3-1. The 'A' team came away again, and soon notched a second goal. Both sides were playing good hockey, and keenly contested. Towards the end the Union notched a fourth goal, and eventually ran out winners by four goals to two.

The South Coorg Athletic Union, having won the tournament for 3 years in succession retains the Cup for good. Mr. F. Macrae very kindly presented the Cup to the captain (Mr. C. A. Reid) of the winning team which received hearty congratulations on its noteworthy success.

J. B. R.

MONTHLY MARKET NOTES

BY

' EOTHEN '

TEA

The tea market, which began the month badly, showed a marked improvement towards the end of September ; and, despite the attractions of rubber, tea shares showed a somewhat firmer tendency. The efforts made by the Indian Tea Association and by the Ceylon Association in London to persuade their companies to restrict their production so as not to exceed that of 1924 or 1923 apparently met with success (*vide* page 744, issue of October 10, Ed.) and this new factor had a steadying effect on the market. Quality, too, at least in the case of certain Southern India and Ceylon teas, showed improvement and better prices were the result. It cannot be denied that from the share market's point of view, however, teas were overshadowed by rubbers. Tea-cum-rubbers in the Ceylon group met with steady inquiry.

With regard to the statistical position it appears that the Northern Indian crop will be adversely affected this year by bad weather. The Indian Tea Association reports that the outturn was about normal in Lower Assam, South Cachar and Sylhet, other districts poor. Immediate prospects in all centres are reported as fair with the exception of Eastern and Western Dooars which is stated to be bad.

Reports from Ceylon indicate that the partial failure of the South-west monsoon has adversely affected tea production. The weather is therefore apparently co-operating to restrict outturn ; and thus assisting the attempts made by the Indian Tea Association and the Ceylon Association in London to keep crops within bounds.

The following are the averages, up to October 10, not including this week's sales :—

	Week ending Oct. 10	Current week, 1924	Jan. 1 to date, 1925	Jan. 1 to date, 1924
North India ...	1/5·77 <i>d.</i>	2/0·11 <i>d.</i>	1/5 <i>d.</i>	1/6·73 <i>d.</i>
Southern India ...	1/3·30 <i>d.</i>	1/10·25 <i>d.</i>	1/5·24 <i>d.</i>	1/6·50 <i>d.</i>
Ceylon ...	1/9·21 <i>d.</i>	2/0·25 <i>d.</i>	1/7·57 <i>d.</i>	1/8·21 <i>d.</i>
Java ...	1/1·44 <i>d.</i>	1/7·86 <i>d.</i>	1/0·66 <i>d.</i>	1/2·91 <i>d.</i>

The auctions this week began with a strong and active demand, and at both the Indian and Ceylon sales competition among buyers was keen. Yesterday common teas again advanced ; and were a $\frac{1}{2}$ *d.* to $\frac{3}{4}$ *d.* per lb. dearer than on Monday for all tea under 1/3*d.* per lb. There was some irregularity in the finest tea, but the tone throughout was strong.

The London stocks of tea as at September 30 last were 161, 954, 198 lbs. Duty payments for January-September were 239, 435, 970 lbs. as compared with 238, 975, 756 lbs. for the same period in 1924.

RUBBER

Once again rubber has topped the four-shilling mark; and the rumblings of distant thunder in America foreshadow another determined attack by U.S.A. and British rubber manufacturers anxious to bring down the price to a more reasonable level. For rubber at one dollar per lb. hits the American exceedingly hard—naturally, in a land where one person in four owns a motor car. (The proportion may be even larger nowadays, but that at least 25 per cent of the population of the U.S.A. own automobiles is one of the most astounding facts of modern times.) We must be prepared, then, for incessant Parliamentary agitation here, and for more diplomatic friendly representations from Washington that the abrogation of the Stevenson Restriction Scheme would be regarded as a friendly act. It may be, too, that these representations will be attended with a certain measure of success, for Mr. Secretary Chamberlain is extremely keen on maintaining the friendliest relations with the U.S.A. On the other hand, whether restriction be taken off or not, this month's manifestations of market opinion lead one seriously to wonder how far consumption has caught up production, and the publication of the German import figures for the first half of 1925, showing that Germany had absorbed more than twice as much rubber as during the corresponding period last year, quite shocked the market, and helped considerably the sudden rise which took place in the first week in October. On October 1 and 2, too, it was obvious that many speculators who had sold October-December delivery short, had been caught and were struggling to cover.

Towards late September the delay of a steamer in reaching New York caused the market to rise sharply, and during the first week in October there was a similar occurrence, only this time rumour had it that two steamers were delayed. This was fairly straightforward evidence that the Americans were working on short stocks, if the non-arrival of a steamer could cause such a sensation, and the market jumped accordingly.

The London rubber stocks now stand at 4,723 tons, this week's landings being 1,563 tons and deliveries 1,849 tons.

Something approaching consternation was caused in the market on Monday, October 12, by the publication of a Reuter's cable from Colombo to the effect that a representative meeting of Ceylon rubber interests had approved a despatch from the Secretary of State containing important proposals regarding rubber restriction. This first cable implied that the exportable maximum for the restriction quarter beginning November 1, would be increased to 95 per cent of standard production instead of 85 per cent which it normally would have been. (Cf. page 784, issue of October 24, Ed.).

The market was naturally much upset and the forward position January-March promptly fell from 3/6d. to 3 per lb. A Colonial Office statement hastily issued in the course of the morning somewhat reassured the market, however. The Colonial Office pointed out that no decisions had actually been

made and rather hinted that confidential proposals made to Ceylon and Malaya had leaked out. This view was taken by the market and it was freely commented upon that no word had been received from Malaya regarding the Secretary of State's proposals; although Malaya is, of course, far more important in the rubber world than is Ceylon. A second Reuter's cable published on Tuesday gave a different version of the proposals which now appear to leave the exportable maximum at 85 per cent in the November-January quarter but propose 105 per cent to be released in the quarter beginning February 1, 1926.

The market is somewhat reassured, but it is obvious that some important amendment of the working of the restriction scheme is in the offing, and that the Colonial Office is making arrangements for the release of more rubber either on November 1, or on February 1, 1926. If so, it should hurry up and definitely say so.

COFFEE

An important feature during the past month has been the rise in Brazilian currency. Sterling prices have, however, failed to benefit as the increased gold value of Brazilian money is offset by lower quotations for coffee in Brazil, quoted in milreis. The American trade has been in a more comfortable position and there has been less buying. American advices indicate that the opinion there is that the decline is the natural consequence of an advance which has rather outrun the statistical position. The limitation on receipts at Santos has been raised to 40,000 bags daily. Messrs. Nortz and Co. point out that with Rio receipts at 20,000 bags, Victoria and Bahia at 6,000 and mlds at 20,000, a total day's receipts of 86,000 is indicated; whereas a consumption of 22,000,000 bags yearly, certainly all that can be hoped for at present prices, averages 73,000 daily. It is evident that Brazil as well as America feels that spot prices are high enough. Nevertheless the world's visible supply, according to Messrs. Duuring and Zoon is now 5,230,000 bags or practically the same figure as a month ago whereas an increase of 440,000 bags occurred during September 1924.

Deliveries were heavy both in Europe and the States, particularly in the latter, and totalled no less than 1,928,000 bags against 1,533,000 bags in September last year. Reports are current that this Santos crop is yielding less than expected and that it will not be safe to reckon on more than ten million bags, the balance carried over from last season included. It is also reported that during September only a partial flowering took place in Sao Paulo, attributed to drought in August, and that in consequence the next crop cannot be large but it remains to be seen whether subsequent rains which have fallen will not give occasion to modify this opinion.

Messrs. James Cook and Co. report that the spot market has been very dull during the past month largely owing to the fact that the bulk of the offerings have been of poor appearance and quality, for which sorts there is not much demand at the moment. Desirable coffee, however, has sold readily at full to again dearer prices.

LONDON,

October 15, 1925.

BANGALORE—CENTRAL HOTEL, 'The Best in the Station.'

COMMERCIAL AND METEOROLOGICAL

I. The Rupee Exchange for the week ending October 31st, 1925
Bank Selling Demand Draft on London

26th	27th	28th	29th	30th	31st
18 5/32d.	18 5/32d.	18 5/32d.	18 5/32d.	18 5/32d.	18 5/32d.

II. Summary of latest Market Reports and Prices to hand :—

(a) Some of the higher London Prices—

Best prices realized on the London Market			Average prices obtained for tea			
Mark	Pkgs.	Price	District	Week ending October 3, 1925	January 1 to October 3, 1925	January 1 to October 3, 1924
TEA (WEEK ENDING OCTOBER 10)				s. d.	s. d.	s. d.
(a) <i>Anamallais</i> —			N. India.	1 5·77	1 5·00	1 6·73
Periakaramalai ...	201	1 3½	S. India **1	3·30	1 5·24	††1 6·50
Karakundru ...	161	1 1½	Ceylon...	1 9·21	1 7·57	1 8·21
(b) <i>Central Travancore</i>			Java ...	1 1·44	1 0·66	1 2·91
Fairfield ...	101	1 4	Nyassa-			
Ladrum ...	165	1 3½	land.	1 5·43	1 4·17	1 5·20
Dymock ...	63	1 3	Sumatra.	0 11·26	1 1·02	1 4·33
(c) <i>Kanen Devans</i> —			Total	*1 6·23	†1 5·47	†1 6·85
Kannamallav	108	1 7½				
Chunduvurrai ...	155	1 7				
Perriavurrai ...	206	1 5½				
Munnai ...	227	1 4½				
(d) <i>Mundakayam</i> —						
Yendayar ...	264	1 1½				
Eranakutt ...	80	1 0½				
(e) <i>Nilgiris</i> —						
Prospect	135	1 8½				
Thiashola ...	111	1 7½				
(f) <i>Nilgiri-Wynaad</i> —						
Barwood ...	48	1 0				
(g) <i>South Travancore</i> —						
Poonmudi ...	101	1 3½				
Braemore ...	36	1 1½				
Hereford ...	34	1 0½				
(h) <i>Wynaad</i> —						
Fringford ...	106	1 2½				
Do. ...	133	1 1½				
Erramaculla ...	196	1 0½				

(b) SPECIAL COFFEE CABLE

LONDON, NOVEMBER 4, 1925

'A' COFFEE

145s. PER CWT.

NOMINAL QUOTATION

** Based on 4,677 pkgs.

† „ „ 147,848 „

†† Based on 114,149 pkgs.

* „ „ 82,007 „

† Based on 2,445,523 pkgs.

† „ „ 2,256,288 „

(c) *Precis of reports on London Markets received on November 2 and covering the week ending October 10 :—*

(1) *Tea*.—Several of the estates shown on the previous page were also mentioned in last week's issue; and all—with one exception—can record a very satisfactory increase in the price they have obtained for their tea. This happy state of affairs is indicative of the improvements in South Indians generally during the week under review, which resulted in rise of 0·21d. in the average price. Common kinds generally showed a smart rise: leaf Tea was unobtainable under 11½d. or Broken Pekoe under 1s. per lb. The total South Indian Exports from January 1, to August 31, inclusive were 27,606,915 lbs. as against 22,796,560 lbs. in the corresponding period of last year.

(2) *Rubber*.—The fluctuations in the market during the week under review were so exceptional that on the first page of our issue of the 24th ultimo we gave them an editorial paragraph compiled from a summary of the cables which had appeared in the Press. The net result of this jumpiness was a closing quotation of about 4s. for 'Spot'; which was only worth 3s./6d. at the beginning of the week.

(3) *Coffee*.—No East Indians were put up at the auctions, where good to medium qualities from other countries, especially from Kenya, registered a small advance.

III. Weekly Rainfall Statement

From April 1, 1925, up to and including Saturday, October 31, 1925

Stations are arranged in order approximately south to north and those not in planting districts are shown in small capitals.

Stations	W.	P.	Total	Stations	W.	P.	Total
1. Kalthuritty.	1·25	79·62	80·87	17. Coonoor ...	4·96	25·28	30·24
2. Tenmalai ...	1·75	81·80	83·55	18. Kotagiri ...	3·18	30·08	33·26
3. Mundakayam.	2·34	138·83	141·17	19. Ootacamund	1·66	34·03	35·69
4. Peermade...	1·11	159·12	160·23	20. Yercaud ...	1·60	35·31	36·91
5. V'periyar ...	1·81	68·21	70·02	21. Devala ...	0·55	123·65	124·20
6. Kalaar ...	4·16	196·58	200·74	22. Gudalur ...	0·55	68·18	68·73
7. Chittuvurrai	4·73	31·65	36·38	23. CALICUT ...	1·91	116·67	118·58
8. BODI'KANUR	1·55	9·52	11·07	24. Kuttyadi ...	5·59	158·20	163·79
9. COCHIN ...	2·15	89·22	91·37	25. Vayittin ...	2·43	149·04	151·47
10. Mooply ...	3·08	93·79	102·87	26. Manantodi...	0·94	102·53	103·47
11. Pachaimalai	2·36	114·04	116·40	27. Billigiris ...	0·63	50·69	51·32
12. Mudis ...	6·25	N.R.	N.R.	28. Sidapur ...	0·10	64·44	64·54
13. POLLACHIE.	1·74	17·78	19·52	29. Somwarpett	0·17	74·13	74·30
14. Manjeri ...	7·74	108·19	115·93	30. Ballupete ...	0·07	67·82	67·89
15. Nilambur ...	1·47	92·24	93·71	31. MANGALORE.	0·43	135·29	135·72
16. Naduvattam	0·65	76·06	76·71	32. MADRAS ...	3·30	28·59	31·89

W = During the week.

P = Previously.

N.R. = No return.

The Planters' Chronicle

Recognized as the Official Organ of the U. P. A. S. I. (Incorporated)

Managing Editor's Postal Address. POST BOX 155, MADRAS

Do. do. Registered Telegraphic Address: UPASI, Madras

VOL. XX, NO. 46] SAT., NOVEMBER 14, 1925 [PRICE, AS. 8

CONTENTS

	PAGE		PAGE
Editorial Notes ...	839	U.P.A.S.I. Sports Club—	
Ceylon Rubber Research		February 'Week' ...	850
Scheme ...	841	The Spotting of Crepe ...	851
The Coffee Borer ...	842	Export Statistics—Coffee,	
Wash in Tea Gardens ...	843	Rubber and Tea ...	852
District Notes—N. Coorg ...	849	Commercial and Meteorolo-	
		gical ...	853

EDITORIAL NOTES

The Director of the Labour Department asks us to state that Superintendents should, when sending in the forms referred to in the Census Notice which we published on page 819 last week, exclude from their figures the small children and non-working 'Dependents' of coolies living on the estate; but include all ordinarily working coolies who—though still living on the estate in the Hospital or the Lines—are, owing to sickness or for some other reason, temporarily absenting themselves from work.

Froebel, Pestalozzi, Montessori and Dalcroze are perhaps equally predominant in Europe as Educational Pioneers. But apparently so far as the East is concerned Dalcroze has stolen a march on his compeers; for the system taught at his institution in Dresden of walking to music, playing to music, working to music, thinking to music, and generally living to music seems—if the *Tea and Coffee Trade Journal* is correct in its information—to be finding favour in the eyes of the Managers of Dutch East Indian Estates. For the benefit of any readers who may care to investigate further the possibilities of this innovation, the following extract describing *modus operandi* is reproduced:—

'Each overseer is provided with a flute, and taught a few simple tunes. The woman are lined up at the beginning of the rows. When the

overseer pipes tune No. 1, each woman bends forward and scoops a hole ; at tune No. 2, the young plant is dropped in ; at tune No. 3 the roots are covered with earth ; and tune No. 4 is the signal for the whole line to move forward to a new position. Before starting to render a number, the overseer waits till all the women are finished with the previous operation, and the knowledge that they are holding up the line spurs the slow ones to quicken their movements. Thus time is saved, likewise a large percentage of the planting costs.'

Through the courtesy of the Librarian to the Director of Agriculture, Mysore, who has kindly sent us a copy, we are able to reproduce a circular—'How to combat Coffee Borer'—which has been for some time out of print. The scrubbing method advocated would certainly appear to be extraordinarily efficacious : that is of course if absolute reliance can be placed on the recorded results. These we note, however, were apparently accepted as unqualifiedly accurate by Dr. Leslie Coleman himself.

We are indebted to *The Planters' Journal and Agriculturist* for the following figures which give the consumption of China Tea and Indian and Ceylon Tea in the United Kingdom up to 1914, and which supplement in an interesting way the figures which we gave on page 656 of our issue of September 5 with regard to the further decline in the Chinese Tea Industry between the years 1913 and 1923 :—

Year	China Tea	India and Ceylon Tea	Year	China Tea	India and Ceylon Tea
	£	£		£	£
1866 ...	97,700,000	4,500,000	1901 ..	17,100,000	238,700,000
1871 ...	109,500,000	13,900,000	1906 ..	24,500,000	236,000,000
1881 ..	111,700,000	160,000,000	1914 .	30,100,000	280,400,000
1891 ...	52,300,000	150,000,000			

In these days of keen competition any industry which remains unorganized is bound to go to the wall. Neither the Chinese Government nor the Tea Interests themselves have combined, or show any signs of combining, to recover their lost share of the tea trade of the world ; and the irresistible conclusion to be drawn from the above figures, taken in conjunction with those published on September 5, is that Chinese tea is experiencing in the United States a slump comparable with that which befell it in the United Kingdom between 1871 and 1901. .

It would help this Office considerably if requests that *The Chronicle* should be sent to a new address invariably stated whether the addressee concerned has been previously getting the paper ; and—if so—at what address. The remarks regarding contributions on page 727 of the issue of October 23, 1925, apply equally to communications regarding changes of address ; and we should be glad if readers would kindly regard revised addresses on the wrappers of their 'Chronicles' as an acknowledgment that their letters have been received and an assurance that their instructions are being carried out.

THE RUBBER RESEARCH SCHEME

FOR

CEYLON

We propose this week to supplement our recent article on the Ceylon Tea Research Institute with a summary of the latest information available from the *Bulletin of the Imperial Institute* with regard to the Ceylon Rubber Research Scheme.

The income from local subscribers amounted to Rs. 24,417 as compared with Rs. 16,700 in 1923 and Rs. 9,312 in 1922 and was supplemented by grants of £2,000 and Rs. 67,500 respectively from the Rubber Growers' Association and the Government of Ceylon. The erection of two new bungalows in 1924 completed the accommodation required for all the Scientific Officers working in the fully equipped research laboratories which were established in 1923 on Culloden Estate.

Mr. J. Mitchell, A.R.C.S.—the Organizing Secretary to the scheme—opines, as a result of his visits of inspection to 68 estates, that while root diseases are satisfactorily under control, Brown Bast and the Phytophthora (bark rot, patch canker, top canker, secondary leaf-fall, and pod disease) diseases of rubber are working extensive havoc which requires curbing by the more efficacious methods which he trusts will be the outcome of continued experiment and research. He further states that in 1924 satisfactory remedies were employed for the smoked sheet 'rust' which was complained of in previous years; and that the chief trouble is now the spotting of Crepe, which as our readers know, is being made the subject of very careful investigation at Home.

The Chemist—Mr. T. E. H. O'Brien, B.Sc.—was occupied in devising a glass hydrometer suitable for use in Ceylon; in working on the mineral constituents of latex; in experimenting with Formic Acid as a coagulant; and in observing what differences were evidenced in the raw and vulcanized rubber obtained from the latex tapped before, and the latex tapped after, Bordeaux mixture had been sprayed upon the trees.

The Physiological Botanist—Mr. R. A. Taylor, B.Sc.—after a study tour in Java and the Federated Malay States, devoted his attention to seed selection, budding, Brown Bast, the change-over system of tapping, manuring, and cover crops.

The Mycologist—Mr. R. H. Stoughton-Harris, B.Sc., A.R.C.S.—who did not assume duties until the last quarter of 1924, is engaged on a study of Phytophthora diseases, and also collaborating with Mr. Taylor in the investigation of Brown Bast.

The workers on behalf of the Scheme at the Imperial Institute, South Kensington, prosecuted their study of variability in the time taken for vulcanization by rubbers from various Ceylon Estates; in order to ascertaining to what extent soil, elevation, and climate influenced the results. A special apparatus was also constructed to measure variations in the plasticity of rubber which has a prejudicial effect on factory operations; with the object of determining, and eventually it is hoped eliminating, the causes of this defect.

Detailed reports of these and other investigations in progress are circulated quarterly to all subscribers, and also interchanged with the publications of the Rubber Growers' Association with a view to further co-operation between the Research Officers in Malaya and those in Ceylon.

THE COFFEE BORER

How to combat It

As a result of the experiments conducted by the Department of Agriculture it has been found that scrubbing the stems twice during the period the adults of the borer are out will considerably reduce the number of trees that have to be pulled out and burnt the year following. At the suggestion of the Department several estate owners last year scrubbed their coffee. The results obtained are given below:—

Name of owner	Acres	Average number of plants annually pulled out, 1914 to 1916	Number pulled out in 1917 after scrubbing in 1916
1. Mr. G. Ahamed Pasha Saheb	62	14,000	1,200
2. „ A. Mohamed Hussain Saheb.	85	3,000 to 8,000	700
3. „ Abdul Sattar Saheb ...	5	200	5
4. „ Ali Akbar Saheb ...	12	900	50
5. „ Abdul Khudus Saheb, and Budandin Saheb ..	5	300	3
6. Kader Mohadin Saheb ...	20½	100 to 300	None.
7. Allaudin Saheb	4	600 to 800	25

As will be seen, the results are very encouraging and warrant the adoption of scrubbing by all coffee planters. The following directions are therefore given for adoption by them. The number of plants that can be scrubbed by one cooly per day is about 70 to 200 and scrubbing will have to be done twice with an interval of a fortnight between the two operations. To get the best results, the date of general emergence has to be ascertained. This usually varies with conditions of rain and heat but is usually about the first week of November. This year it is likely to be a little later as the north-east monsoon has been profuse. From observation it is not likely to commence until the fourth week of November. Scrubbing should be undertaken then. It is best done with brushes made as follows:—The cocoanut is shelled so as to split the fibre into three parts of which the upper portions are cut off. The hard blocks of closely packed fibre so made are cheap and admirably adapted for scrubbing. Efforts should also be made to catch the beetles which are small and sluggish and which may be found on the coffee trees. The Assistant Entomologist who will be stationed at Saklespur may be addressed for any help that may be required.

LESLIE C. COLEMAN,

Director of Agriculture.

DEPARTMENT OF AGRICULTURE, MYSORE STATE,

Circular No. 20, dated November 2, 1917.

WASH IN TEA GARDENS

We reproduce below a translation, which recently appeared in *The Tropical Agriculturist*, of an interesting lecture delivered in Dutch on the above subject by Dr. A. R. W. Kerkhoven before the Bandoeng Tea Congress of 1924 :—

People who have never seen the serious consequences of a lack of proper measures against wash in old tea gardens, cannot imagine what proportions they may assume.

Water that will not flow over the surface is :

1. That which is naturally absorbed by the soil. This is a very variable amount, varying with the nature of the soil.

Where the soil is spongy and very porous to a great depth, a shower of, say, 40 to 60 m.m. will be easily absorbed in a short time.

When the rain has been falling every day for a long period the less porous soils get soaked to such an extent, that they cannot absorb any more water. Only in the very porous soils can the absorption and percolation be depended upon to prevent the water from flowing over the surface.

It is not wise to let the soil absorb too much water. This point will be considered later on.

2. That which is retained by 'water-holes' or 'catch pits'. In the less porous soils the 'water-holes' remain full of water sometimes for a day or longer.

Consequently the capacity of these 'water-holes' should not be depended upon.

Moreover, the abnormally heavy showers are not always polite enough to wait until the Manager has dug his 'water-holes' to the prescribed depth!

The calculated water-capacity of the holes should therefore be divided by two at least.

If we take, say, a system of water-holes of 0.15 M. (6") broad, 0.40 M. (16") deep and 2.70 M. (8' 10") long, with 0.90 M. (3') between the holes, these being made between the alternate rows of tea bushes planted in rows of 1.20 M. (approximately 4') apart, we come to 1150 holes per hectare and 0.162 cubic metre per hole.

The combined capacity of all the holes per hectare is 186 cubic metres which corresponds with the amount of water that a shower of only 19 m.m. would deposit on the soil.

It is clear that this amount is unimportant, especially if we can count on one-half of it only, say, 10 m.m.

3. *Evaporation*.—This factor may be neglected during the short duration of a heavy shower.

Summa Summarum we can subtract very little in calculating the amount which probably will flow over the surface.

This however is all theory. In practice we see how much soil is yearly carried away when we observe the roots of tea bushes showing above the level of the ground.

In fact the wash will become worse every year, if no preventive measures are taken, the lower strata of the soil being less and less porous.

The amount of earth carried away by tropical rivers is the five or tenfold of the corresponding amount in European rivers.

The wash is not only caused by the heavier showers but also by the clayey nature of many soils. The clay is 'churned' by the heavy rain drops and is easily carried away. When the soil is covered with grass, weeds or Leguminosae this 'churning' is prevented.

This is the reason why creeping, soil-covering leguminosae are so useful in preventing wash.

To a certain extent the leaves of trees also prevent the 'churning action' by breaking the force of the falling rain-drops, but the drip usually increases it.

The various measures against wash with regard to their importance may be classified as follows :—

- I. Contour-drains.
- II. Planting the tea in horizontal rows, with or without horizontal terraces.
- III. 'Water-holes' or 'catch pits'.
- IV. Horizontal hedges of some sort : preferably Leguminosae, or ground covering Leguminosae.
- V. Regular upkeep.

Of course all these measures against wash are much more important where the land is steep.

In very flat land the wash is generally not serious, but in some cases this may be quite different. For instance, in some of the very flat tea districts of Sumatra (Siantar) the wash is extraordinarily difficult to prevent, although the soil has rather a sandy than a porous appearance.

Let us consider what can be done in future to prevent wash when opening up a new estate.

Initial mistakes and deficiencies are as a rule very difficult to correct, if at all, and will entail considerable additional expense.

It is therefore an absolute necessity to work on a pre-determined and systematic plan from the very beginning.

After the land has been cleared and hoed once, one should immediately commence to lay out a system of roads, not only of cart-roads, but also of garden roads.

Time prevents me from enlarging upon this very interesting subject, which I shall treat only in its connection with the prevention of wash. The following rules should be observed :—

1. Roads should not be supposed to act as drains, because the water will soon render them useless.

Every road of course will receive a certain amount of water, but this should be carried off as quickly as possible.

2. Thus, if possible, a contour drain should be made just above the road, in order to protect it against too much water.

3. The so-called horizontal roads should not be made absolutely horizontal but sloping gently towards the valleys or 'main-drains'. If the slope is only below 1 in 40 very little damage to the road gutters is to be feared.

The reason that the roads should be laid out first of all is, that the contour drains should be made in such a way that they do not carry water to the roads. Where a contour drain crosses a road special measures should be taken. If possible however, these crossings should be avoided.

Contour drains I have always advocated the use of contour drains on the fish-bone system, which will be explained further on.

The action of these contour drains is very often only imperfectly understood.

The principal idea is that they should carry off the surplus water which flows over the ground during the heavy showers, and that they should carry this water to the nearest valley or 'main drain.' But they have a very important secondary action : they also carry off the under-ground water and therefore more or less prevent the flow over the surface.

If the showers are not too heavy it may be observed (if the drains are deep enough) that they begin to carry water very soon after the commencement of the shower and that this water is clear, i.e., does not carry away any earth.

If the drains are close enough to each other, they carry away so much of this under-ground water that only a very heavy shower will cause a loss of earth by flowing over the surface.

The deeper the drains, the stronger the action. Consequently, do not make shallow drains, even if they are close together.

The walls of the drains should, of course, be planted with creeping Leguminosæ, harmless weeds (for instance *Hydrocotyle*) or grass of some sort which does not spread too easily.

Andropogon Muricatus.—Retz, which we call 'djoekoet wangi' is sometimes used; it has a very large number of roots, which keep the particles of earth together.

In making drains on the fish-bone system it should be kept in mind :

(a) That it is wrong to make the contour drains too long because the lower part will carry too much water and will overflow, causing considerable damage.

In order to make the drains as short as possible, they should slope towards the valleys, or towards the lower parts of the 'folds' in the land, where the 'main-drains' should be made.

(b) The slope of the contour-drains depends upon the nature of the soil. Never give the drains a steeper slope than 1 in 25, as otherwise the velocity of the water becomes too great and the drain will be washed out.

If the slope is less than 1 in 40 or 1 in 60 (depending upon the soils,) the velocity of the stream will be too small, deposits of earth, leaves, etc., will result, clogging the drain and causing overflows.

In heavy, clayey soils 1 in 25 is advisable ; in loose porous soils 1 in 40 and in very loose soils 1 in 60.

To prevent earthing up, deep 'catch-holes' may be made in the drain at frequent intervals ; these should be dug out frequently.

The earth from these holes may be spread out in the gardens.

(c) The valleys are the natural drains and therefore the 'main-drains' should be made in the valleys.

Some people object that valleys, as a rule, have the most fertile soil ; this is true, but they should be drained, fertile soil when water-logged being useless for tea.

Water tends towards the valleys and if deep drains are made in the valleys there is no danger of a 'break-through'.

Consequently it is wrong to make the 'main-drains' on the ridges.

The 'main-drains' are usually rather steep, objections being sometimes raised that they are soon washed out and cause small landslides. This is true to a certain extent, but it is better to localize the 'wash-outs' than to have them all over the garden (if no drains are made) and thus lose the fertile upper part of the soil.

The sides and bottom of the main-drains should be kept covered with grass and if this alone cannot prevent the drains getting too deep, small dams of wood or bamboo, or better still, living branches of 'dadap' (*Erythrina lithosperma* Miq.), 'Kirinjoeh' (*Eupatorium pallescens* D. C.), 'handeuleum' (*Graptophyllum hortense* Nees), etc., can be made. Sometimes a stone-dressing may be used to advantage.

Where no sufficient number of natural valleys or 'folds' are available it is necessary to make the main-drains at distances of not more than 100 to 200 yards apart.

This is the 'herring-bone' system, which I have used in all my younger gardens and which has given complete satisfaction.

Lack of time forces me to omit a description of other systems, which although very interesting, are in my opinion less effective.

Water-holes.—I have already mentioned their capacity. The advantages of the water-holes, which are used extensively in Java, are as follows:—

(1) They collect a certain amount of rain-water, which will slowly percolate into the soil and therefore effectively prevent wash if the showers are not too heavy and if the holes are dug out at frequent intervals. In doing this, the earth should be spread *above* the hole, not below. Thus the earth is returned to the place it came from and there is no loss.

(2) When making the holes a certain amount of earth from the lower strata is brought up and after sufficient weathering supplies reserve food.

(3) The lower strata are brought into contact with the atmosphere and the soil is better aerated.

I do not approve of the system of filling the holes with prunings and digging new holes every time the garden is pruned, because then too much damage is done to the roots.

Water-holes should be made between every two rows of tea, not between three or four rows. They should not be too long, as otherwise the water will accumulate in the lower part and overflow, if they are not absolutely horizontal.

In extremely stiff soils very deep and broad holes are useful, but they are very difficult to make, and expensive. As they effectively prevent wash, they are not so soon filled with earth as the smaller holes and therefore the upkeep is relatively cheap.

The improved aeration certainly *increases the yield* of tea gardens on very stiff soils.

Formerly the water-holes were made short and in each row, but 'staggered.' This is a good system for obvious reasons, but it is rather troublesome during plucking and it does not allow us to plant continuous hedges of Leguminosae.

In order to make the use of water-holes possible, the rows of tea should not be too close together.

Too close planting is in any case a grave blunder as every individual tea plant has insufficient room above and under the soil to develop properly and to obtain the necessary plant food, air, and sunshine.

Wider planting is also necessary if we wish to make use of terraces and hedges of Leguminosae.

The hedges of Leguminosae should be planted in the rows where no water-holes occur. *Leucaena glauca*, if frequently pruned fairly low, makes splendid hedges. The prunings should be laid behind the hedges, in order to catch the earth.

This is not the place to enlarge upon the advantages of Leguminosae in tea gardens. It is sufficient to say that they improve the structure of

the soil in many ways and therefore make it more porous, thereby preventing wash very effectively.

Terraces. The opinions of planters on the adequacy of terraces are much divided.

My opinion is that terraces are very useful on gently sloping land but not absolutely necessary. The sides should be kept covered with good weeds of creeping Leguminosae like *Vigna oligosperma*; hedges of Leguminosae like *Leucaena glauca* may be planted on the edges of the terraces.

They may be used in conjunction with contour-drains and water-holes, but in any case they should be made perfectly horizontal.

Sloping terraces are worse than useless, as they carry water and increase wash.

In very steep places contour-drains and water-holes are useless, and horizontal terraces with properly protected slopes are the only practical solution of the problem.

When opening up new gardens on very steep soil it is a good system to dig fairly deep horizontal trenches and fill them with good fertile upper soil, in which the young tea plants are sure to thrive.

The best system for keeping the slopes in repair is to plant them with some sort of creeping Leguminosae; *Vigna oligosperma* is very good and it improves the soil wonderfully.

Vigna, however, requires a fine loose soil and sometimes it has to be aided with a little ashes or manure to make it grow.

Regarding green manuring I only wish to state here, that the extensive use of green manuring always diminishes the wash, the ground covering Leguminosae retaining a large amount of water or preventing too much percolation, thus also preventing the 'washing-out' of the soil, which, in some cases, is even worse than the surface-wash.

The water percolating to the deeper strata carries away a lot of easily soluble plant food, of which only a small part comes back through the capillary action of the soil during the dry monsoon.

Therefore do not force the soil to absorb too much water by depending on water holes only.

Let the surplus water flow away as much as possible, but prevent it doing damage by the means described above.

'Clean weeding' in the past has been the principal cause of wash. Its disadvantages have been stated so often that I hope that now it is a thing of the past.

Economization of the expenses for the upkeep of the various measures against wash leads to a rapid loss of soil capital.

In choosing a preventive system of means against wash, the labour question is very important; time however does not permit this problem to be treated here.

DISTRICT NOTES

North Coorg

The Kowdcoody-Huntsey 'At Home' on October 24, was the occasion of the annual Coorg Steeple-chases. The morning was spent on the Hoskotty bané where Mr. Iron had constructed a first-class course for the three events which 'filled the card.'

These were the 2½ miles Coorg National for First Division Horses for the Ball Memorial Cup and two 1½ mile chases for Second Division Horses and Ponies. Mrs. Pearse and the two hosts, Messrs. Newcome and Iron, generously provided cups for these latter events.

In the first, five horses faced the starter. At the first jump Fairy Steps, who still requires considerable schooling, refused. Ginger led until the 'Hollow,' when Baronet followed by Colonel went ahead. Erratic jumping at the next fence nearly resulted in a spill. After the first round was completed the pace quickened; Baronet still leading with Colonel at his tail. Ginger, unable to stay, dropped further behind; and Foxtrot, carrying top weight, drew up as the last half round was commenced only to fail as the handicap proved too much for her. On the corner into the straight Baronet on the inside maintained his lead, but Colonel gaining somewhat at the jumps challenged on the run-in to draw ahead in the last few strides and win a most exciting finish by half a length.

In the Second Division five horses also started. Far Isle with his deep-rooted preference for side-rails interfered with The Wallad, a double upset resulting. Fiancée then took the lead from Lorna and Winkie but running out at a corner led Winkie astray and left Lorna in sole possession of the course. The accident to Lorna last Race Meeting still however has its effects. Her pace decreased and Webb on Fiancée, having regained the course, was able to make up the ground lost; and win at a canter when Lorna fell at the last jump.

Of the Ponies; Sergt. Murphy II decided the first jump was too much for him and Foxglove by running out allowed Rhoda and Mighty Atom to establish a considerable lead. The latter, heaving himself over every jump, was lying well up until, finally heaving his rider a little further than himself, he enabled Rhoda to win as she liked; with Foxglove a belated second.

It was a pleasure to see the Chief Commissioner and Mrs. Pearse and the Staff among the numerous guests, but unfortunately an attack of fever prevented the 'Chief' from joining in the excellent lunch which followed at Kowdcoody.

It was also good to have with us Mr. Fletcher Norton and back amongst us, 'our' Mr. Cox.

Ball Memorial Cup. Distance 2½ miles.

COLONEL (Mr. P. A. Nanjappa), 11-3, Davies ... 1

BARONET (Mr. J. O. F. Maurice), 11-0, Spratt ... 2

FOXTROT (Mr. C. S. Iron), 12-0, Owner ... 3

Also ran: Ginger (Nicolls) 10-7; Fairy Steps (Morgan) 12-0.

Second Division Horse Cup. Distance $1\frac{1}{2}$ miles.

FIANCEE (Mr. A. M. Webb), 11-7, Owner ... 1

Also ran : Lorna (Humphries) ; Winkie (Owen) ; The Wallad (Mahon) ; Far Isle (Morgan).

Pony Cup. Distance $1\frac{1}{2}$ miles.

RHODA (Mr. W. E. Dickinson), 12-0, Nicolls ... 1

FOXGLOVE (Mr. J. H. Sprott), 11-0, Owner ... 2

MIGHTY ATOM (Mr. W. A. Davies), 11-6, " ... 3

Also ran : Sergt. Murphy (Owen) ; 10-7.

W. A. D.

U. P. A. S. I. SPORTS CLUB

Planters Week, February 1926

ADVANCE PROGRAMME

Special Notes

(Continued from page 827 of issue of November 7, 1925)

(1) GOLF AND TENNIS.—

Friday, February 19, 1926

COMPETITORS in the Inter District Tennis and Golf Tournaments should arrive at Ootacamund on this day ; as these events are timed to start sharp at 10 a.m. on Saturday, February 20, 1926.

TENNIS COURTS will be open, and Golf caddies available, in the afternoon for practice games.

DRAWS for Inter District Golf and Tennis, and for the ' Murphy ' and ' Harper ' Cups will take place at the Golf House at 3 p.m. Members of the Committee should time their arrival in Ooty in order to be present.

ADMISSION TICKETS will be available from the Honorary Secretary during the afternoon and evening for those members who have not applied for same previously.

(2) NIGHT EVENTS.—

Saturday, February 27, 1926

CORRIGENDUM.—Please substitute ' Cinderella dance at Woodside 9.30 p.m. ' for ' Entertainment at Assembly Rooms ' which appeared in the Advance Programme published on page 826 last week.

(3) JAZZ BANDS. Any members willing and able to play in the Planters' No. 2 jazz are requested to send in their names to Mr. E. L. Koechlin of Glenmorgan Estate, Pykara B.P.O., Nilgiris. No. 1 jazz is being raised by the Anamalais.

(4) ' REVUE ' at Assembly Rooms.—(Reminder) Will any wishing to take part in the programme please send in their names to Mr. T. Colthurst, Somerdale Estate, Ootacamund.

G. W. FULCHER,

Honorary Secretary.

November 8, 1925.

THE SPOTTING OF CREPE RUBBER

BY

W. BROWN, M.A., D.Sc.

(Continued from page 810, issue of October 31)

Strips which had been soaked in water at 47° for 3-4 days were used for spotting tests as follows. A stock medium containing glucose 0·2 per cent, neutral potassium phosphate 0·12 per cent, magnesium sulphate, 0·07 per cent was made up and with this as basis, three complete media were made up containing respectively :—

- (a) 0·2 per cent ammonium chloride
- (b) 0·2 per cent asparagin.
- (c) 0·2 per cent potassium nitrate.

These three media were placed in a number of test tubes, strips of rubber inserted, and inoculations with *Fusarium* made in the usual way. All the tubes were incubated at 25° C.

In two days, spotting was strongly developed in the strips over medium A, slight over B, and none at all over C. In the course of a few days more, the whole of the strips over A became an intense violet, those over the medium B showed only localized spots, while those over C showed at most only the faintest trace of spotting.

The medium containing the ammonium salt thus appeared by far the best for inducing spotting. By leaving out in turn each constituent of the medium it was further found that by far the most important constituent was the ammonium salt. Omission of the phosphate and magnesium sulphate constituent has no effect at all; omission of the glucose only reduced the spotting effects slightly, whereas leaving out the ammonium salt cut down the rate of spotting enormously. In fact spotting was obtained as rapidly and in the same degree with the ammonium salt only, as with the full medium.

In order therefore to produce rapid and intense spotting with the *Fusarium*, the following simple method was adopted. Strips of rubber, after 3-4 days' swelling in water at 47° were placed in tubes containing a few cc's of a 0·2 per cent solution of ammonium chloride, and then inoculated. More frequently the strips were soaked overnight in the solution of ammonium salt, the latter then poured off and the strips inoculated. Under conditions of optimal temperature (ca. 30° C.), spotting is easily visible within 24 hours and in two days practically the whole of the strip is stained an intense violet.

As far as can be seen any ammonium salt will serve equally well for the present purpose. At any rate the following salts have been tested—chloride, sulphate, phosphate, nitrate, acetate, tartrate, and oxalate—and all have proved equally efficacious. It was also shown that a concentration of 0·05 per cent was as effective as one of 0·2 per cent, and that the concentration of the ammonium salt had to be lowered to about 0·02 per cent before any appreciable reduction in the degree of spotting appeared. Hence one may state generally that the conditions necessary in the rubber for intense spotting by the *Fusarium* are (1) a sufficiently high water content; (2) the presence of a trace of an ammonium salt.

(To be concluded next week)

EXPORTS OF TEA, COFFEE & RUBBER FROM SOUTH INDIAN PORTS DURING SEPTEMBER, 1925

From	To ports in India	Ceylon	United Kingdom	Europe (excluding United Kingdom)	Asia (excluding India and Ceylon)	Africa	America	Australia
Tea—								
Madras	1,938	...	287,498	542	661	...	...	...
Calicut	26,001	26,095	1,806,909	1,200	2,200	...	5,150	...
Cochin	...	27,412	813,268	480	...	...	...	...
Tellicherry	...	...	94,519	...	...	...	...	...
Tuticorin	...	266,791	1,041,214	...	...	...	...	...
Alleppey	...	22,625	41,445	...	...	...	...	...
Total	27,939	342,923	4,084,853	2,222	2,861	...	5,150	...
Previously	165,729	1,625,931	14,003,032	1,055,799	3,739	2,520	24,510	...
Total lbs. since 1-1-25	193,668	1,968,854	18,087,885	1,058,021	6,600	2,520	29,660	...
Coffee—								
Madras	517	...	1	4	26	...	...	60
Calicut	...	...	...	508	...	...	...	...
Mangalore	4	...	735	12,181	588	...	...	343
Tellicherry	...	...	...	4,057	...	...	...	...
Bombay	...	...	...	...	270	...	...	...
Total	521	...	736	16,750	884	...	...	403
Previously	15,524	34	110,249	82,864	28,533	1	503	7,391
Total cwt. since 1-1-25	16,045	34	110,985	99,614	29,417	1	503	7,794
Rubber—								
Calicut	...	51,844	201,482	4,497	...	...	...	...
Cochin	427	172,587	403,389	2,310	...	2,250	156,835	...
Tellicherry	...	...	16,326	...	...	...	...	...
Tuticorin	...	101,296	5,000	...	...	...	...	...
Alleppey	...	123,911	19,840	...	710	...	...	...
Total	427	449,638	646,037	6,807	710	2,250	156,835	...
Previously	2,042	3,616,692	3,120,242	103,993	753	12,244	1,105,111	...
Total lbs. since 1-1-25	2,469	4,066,330	3,766,279	110,800	1,463	14,494	1,261,946	...

COMMERCIAL AND METEOROLOGICAL

I. The Rupee Exchange for the week ending November 7th, 1925

Bank Selling Demand Draft on London

2nd	3rd	4th	5th	6th	7th
18 5/32d.	18 5/32d.	18 5/32d.	18 5/32d.	18 5/32d	18 5/32d

II. Summary of latest Market Reports and Prices to hand :—

(a) Some of the higher London Prices—

Best prices realized on the London Market			Average prices obtained for tea			
Mark	Pkgs.	Price	District	Week ending October 17, 1925	January 1 to October 17, 1925	January 1 to October 17, 1924
TEA (WEEK ENDING OCTOBER 17, 1925)				s. d.	s. d.	s. d.
(a) <i>Anamallars</i> —			N India	1 6-71	1 5-07	1 6-95
Sholayar...	159	1 7	S. India	**1 5-69	†1 5-25	†1 6-53
Kallyar ...	88	1 7	Ceylon...	1 10-79	1 7-64	1 8-26
Thayamudi ...	240	1 5½	Java ...	1 1-23	1 0-67	1 2-98
Mokuttu Mudi	273	1 5½	Sumatra	Nil.	1 4-17	1 5-33
			Nyassa-land.	Nil	1 1-02	1 4-43
			Total	*1 7-41	†1 5-54	†1 7-00
(b) <i>Central Travancore</i>						
Dymock ...	73	1 4½				
Injimallay ...	90	1 4				
Bonami ...	60	1 3½				
Mount ...	50	1 1½				
(c) <i>Kanen Devans</i> —						
Letchmi ..	110	1 8				
Madupatty ..	112	1 7½				
Chockanad ..	70	1 6½				
Munnar ..	165	1 6½				
Sevenmally ..	147	1 6½				
Guderal ..	147	1 6½				
(d) <i>Nilgiris</i> —						
Thiashola ...	43	1 6½				

(b) SPECIAL COFFEE CABLE

LONDON, NOVEMBER 11, 1925

'A' COFFEE

145s. PER CWT.

NOMINAL QUOTATION

**Based on 2,571 pkgs.
†† " " 150,419 "

*Based on 115,429 pkgs.
† " " 73,065 "

†Based on 2,516,588 pkgs.
† " " 2,351,998 "

(c) *Précis of reports on London Markets received on November 9 and covering the week ending October 17 :—*

(1) *Tea.*—South Indians contributed more than any other kinds to the rise of 1·18*d.* in the total average price during the week under review, for they fetched on an average no less than 2·39*d.* more than they had realized in the previous week. The market showed a most satisfactory all round advance, and increased prices were obtained for all desirable kinds; even common tea registering an advance of about 1½*d.* per pound. Between April 1 and September 30, 21,153,540 lbs. of tea had been exported to foreign countries from South Indian ports as against 17,309,366 lbs. shipped during the corresponding period of last year.

(2) *Rubber.*—During the week under review the Spot price remained round about the 4*s.* which was the closing quotation of the previous week. Slight fluctuations of course occurred; and indeed these will inevitably persist until London carries bigger stocks; for as things are the price from moment to moment depends on the orders for immediate shipments to the U.S.A.

It gives food for thought to notice that the September shipments from Malaya are only estimated at 27,000 tons as against the 27,894 tons actually shipped in June; although the percentages of standard production allowed to be imported in those two months were respectively 75 per cent and 65 per cent. This anomaly, whatever be its explanation, seems to explain how it is that the usually acute American Buyers are finding themselves once again 'caught short'.

(3) *Coffee.*—No South Indians were offered at auctions; but good qualities from other sources fetched a satisfactory price. The market for medium and poor qualities was very dull.

III. Weekly Rainfall Statement

From April 1, 1925, up to and including Saturday, November 7, 1925

Stations are arranged in order approximately south to north and those not in planting districts are shown in small capitals.

Stations	W.	P.	Total	Stations	W.	P.	Total
1. Kalthurttty.	0·06	80·87	80·93	17. Coonoor ...	0·42	30·24	30·66
2. Tenmalai ...	0·71	83·55	84·26	18. Kotagiri ...	0·03	33·26	33·29
3. Mundakayam.	1·65	141·17	142·82	19. Ootacamund	0·05	35·69	35·74
4. Peermade...	0·80	160·23	161·03	20. Yercaud ...	0·18	36·91	37·09
5. V'periyar ...	0·27	70·02	70·29	21. Devala ...	Nil	124·20	124·20
6. Kalaar ...	0·70	200·74	201·44	22. Gudalur ...	Nil	68·73	68·73
7. Chittuvurrai	0·50	36·38	36·88	23. CALICUT ...	0·07	118·58	118·65
8. BODI'KANUR	0·02	11·07	11·09	24. Kuttiyadi ...	Nil	163·79	163·79
9. COCHIN ...	2·47	91·37	93·84	25. Vayitturi ...	Nil	151·47	151·47
10. Mooply ...	Nil	102·87	102·87	26. Manantodi...	Nil	103·47	103·47
11. Pachaimalai	0·30	116·40	116·70	27. Billigiris ...	0·84	51·32	52·16
12. Mudis ...	0·76	186·98	187·74	28. Sidapur ...	Nil	64·54	64·54
13. POLLACHIE.	0·89	19·52	20·41	29. Somwarpett	0·02	74·30	74·32
14. Manjeri ...	Nil	115·93	115·93	30. Ballupete ...	N.R.	68·14	N.R.
15. Nilambur ...	Nil	93·71	93·71	31. MANGALORE.	Nil	135·72	135·72
16. Naduvattam	Nil	76·71	76·71	32. MADRAS ...	3·11	31·89	35·00

W = During the week.

P = Previously.

N R. = No return.

The Planters' Chronicle

Recognized as the Official Organ of the U. P. A. S. I. (Incorporated)

Managing Editor's Postal Address : POST BOX 155, MADRAS

Do. do. Registered Telegraphic Address : **UPASI, Madras**

VOL. XX, NO. 47] SAT., NOVEMBER 21, 1925 [PRICE, AS. 8

CONTENTS

	PAGE		PAGE
Editorial Notes ...	855	District Notes—	
The Coffee Borer ...	857	Shevaroyes ...	867
District Association Meeting—		South Coorg ...	868
Coorg ..	860	Commercial and Meteorolo-	
Letters to the Editor—		gical ...	869
Planters' Benevolent Fund.	862		
Export of Manures ...	863		

EDITORIAL NOTES

It is but two weeks since we commented on the heavy losses sustained by the Planting Community in October through the deaths of three prominent members; and to-day again we have to record the very sudden decease of Mr. A. H. Jackson of Dubarry Estate, Pollibetta, and to tender our sympathy to his bereaved relatives and in particular to his two daughters and two sons. Our South Coorg Honorary Correspondent has furnished us with details of the sad occurrence which are published elsewhere in this issue; and a private letter which we have received states that the secret of the late Mr. Jackson's extraordinary popularity was that he was a 'pucca Sahib'; which we suppose is the highest praise that could be given to any man.

Mr. Marshall Stevens, presiding at the Annual Meeting of the Trafford Park Estates, Ltd., on October 8, 1925, attributed the £2,000 falling off in profits during the year he was reviewing to the fact that the Company had been unable to rent out a large portion of their Warehouse space. That space, comprising a total capacity of 7,000,000 cubic feet and adjoining the Manchester Docks in the

heart of one of the most important Industrial Districts in the world, is already the Home of some 120 separate firms—not least amongst which the Chairman placed Messrs. Brooke Bond & Co., whose enterprise in shipping Tea direct to Manchester had, he stated, given a great impetus towards the development of the city as a port.

Mr. E. L. Killick, whose tour in Malaya was mentioned in our issue of October 31, has cabled to his Paper *The Financial Times* that Sir George Maxwell, Chief Secretary to the Government, assured him that there are vast areas of virgin soil, eminently suitable for Rubber growing, running parallel to the railway line in Pahang. Well-informed Malayan opinion however seems to be extremely concerned about the labour question, and in many districts the number of coolies available appears barely sufficient to keep the output of rubber up to the maximum at present sanctioned for exportation under the Stevenson Restriction Scheme. With the labour market thus disorganized, it would possibly be extremely difficult to arrange for the opening up of 'vast' tracts of land. Mr. Killick himself thinks that an increase of 80,000 on the estimated strength of the Malayan Estate Labour Force in June 1924 would be necessary before an output of 100 per cent under the Restriction Scheme could be achieved. He further states that in his opinion 'a fresh slump' as serious as that which the Industry had just weathered was inevitable unless Restriction continued to be operative even after the 100 per cent export point had been reached. It occurs to us however on reading Mr. Killick's remarks that, independently altogether of Restriction, the present smallness of the labour force should be an effective brake on any speeding up of production above 100 per cent, and even perhaps above the present 85 per cent, of the Standard Scale. Even in 1924—when conditions throughout practically the whole of the South Indian recruiting districts were giving an unprecedented impetus towards emigration and when no less than 156½ thousand coolies went to Ceylon—the number who emigrated to the Federated Malaya States was only just over 40,000; a figure which merely compensated for the loss of those who returned to India from the Straits and affected no increase in the nett strength of the Labour Force.

We note from a cable in the press that Mr. Hoover of the United States Department of Commerce was retelling the old old story at Erie, Pennsylvania, on the 1st of this month. He waxed indignant because restriction was still enforced although the price of rubber was over 1 dollar per pound. Our readers are of course aware that from the introduction of restriction in November 1922 until the end of October 1924 the average quarterly price of rubber only once reached 1s./3d.—i.e., in the quarter February–April, 1923, when it was 1s./48d.; and that the average prices for rubber, in 1921, 1922, 1923 and 1924 respectively were 10½d., 9½d., 15½d. and 13½d. which gives a mean average for the quadriennium of 12½d. a pound. Incidentally we note from the 1924 Year Book of the United States Department of Agriculture that the average New York prices per pound of fine Para Rubber in the years mentioned were respectively \$182, \$182, \$249, and \$211. Mr. Hoover however and his co-nationals who make public statements on the Rubber position do not, so far as our information goes, dwell on this aspect of the Restriction case; and we therefore reiterate it, as possibly some of them may see the complimentary copy of this paper which is sent to an official of Mr. Hoover's Department every week.

THE COFFEE BORER

A Coorg Planter asks us whether, in view of the absence on furlough of the Scientific Officers of the U.P.A.S.I., and of the fact that the Government Entomological Section at Coimbatore has never intensively investigated the Coffee Borer pest, it would not be possible for us to attempt a resumé of the information on the subject which has appeared in *The Planters' Chronicle* from time to time in bygone years. The volumes of this paper which did deal with the Coffee Borer belong, he points out, for the most part to a past decade, and are therefore unlikely to be found on very many Superintendents' office-tables to-day. Most of the other publications on the subject seem also to have been written many years ago, and to be in most cases long since out of print. In these circumstances we endeavour to comply to the best of our ability with our Correspondent's request.

The earliest reference to the subject which we have been able to trace appears in a report (published by Messrs. Higginbothams, Ltd.) made by Mr. John Cameron, F.L.S., the Superintendent of the Mysore Government Gardens on a visit which he paid to Coorg in 1898-1899. This Gentleman suggested five remedies; but, of these, the fifth and possibly the fourth appear to be the only ones which mortals on any particular estate can command at any particular time. Firstly, secondly, and thirdly he states that particular attention should be given to depth of soil, adequacy of moisture, and the presence of insectivorous birds such as woodpeckers, jays, thrushes, mynas, hoopoes, sparrows, larks, crowpheasants and jungle fowl. Fourthly he commends a sufficiency of shade, and lastly the application of neem in the form either of cake applied to the soil or of oil poured into the holes which the insects bore.

Next in order of date of publication in book form (though probably not of compilation) comes the chapter on the pest contained in 'Science and Coffee' by the late Mr. William Pringle, M.S.C.I., sometime Agricultural Chemist in Coorg to Messrs. Matheson and Co., which originally appeared in *The Madras Mail* and was republished in book form in 1907 by the Minerva Press. The pamphlet mentions that Dunning called the Coffee Borer Larva *Clytus coffeophagus* and suggests as preferable *Xylotrupes coffea indica*; but both these appellations have now, we imagine, been superseded permanently by *Xylotrechus quadripes* which designates scientifically the genus and species to which the Borer belongs. Mr. Pringle found that the eggs if maintained at a temperature of 80° F. to 90° F. produced Larvae in about ten days; and that, as the temperature was lowered, the development of the eggs was retarded (very appreciably below 65° F.), until at a temperature of 36° F., all of them died within twenty-four hours. These experimental findings would of course explain the remedial value of shade; which retards the development of the eggs and therefore increases the probability of their being washed off the trees by the rain. So far as Coorg is concerned, they seem to have been corroborated by the author's actual observations; for he found that the maximum incidences of the Larvae were in May and October when the temperature was seldom if ever below 65° F. and that the minimum incidences were in February and July when the temperature falls to round about 50° F. Another interesting experiment was conducted to show the effect of moisture on the development of the eggs. Twelve borer trees were chosen on May 13, 1888. In the case of four the soil, and also the tree itself, were kept constantly damp; in the case of four the soil only (but not the tree)

was kept constantly damp; and in the case of four both soil and tree were kept quite dry. When the trees were cut open on September 9, 1888, it was found that the average number of eggs per tree which had developed up to or beyond the Larva stage in each of the three categories was respectively 5.75, 17.75 and 51.50; thus indicating that though felled trees may not develop many beetles during the monsoon when they remain damp, they will certainly do so if they are allowed to stay on the ground after the weather has become dry.

It may now be opportune to summarize the account given by the author of the life cycle of the pest. In about ten days the Larvae are hatched from the eggs which the beetle deposits in a crevice of the bark on the sunny side of the tree, and in twenty-four hours they have found their way underneath the bark. There they burrow for the next four months about $\frac{1}{4}$ inch below the bark, eventually emerging into the pupa stage. After a month's 'hibernation' they are metamorphosed into the beetle form in which they make their way out to the surface of the tree.

On page 480 of *The Planters' Chronicle* for 1913 an illustration of the beetle was reproduced, to simplify identification by planters who, it was suggested, could have the beetles collected by hand in March and October from the stem of the bush just above ground level, and killed before they had a chance of laying eggs. On page 508 of the same volume Mr. A. G. Nicholson wrote to say that he had obtained excellent results from scrapping the stems of the trees, and covering them thickly with a white wash made from fresh shell lime.

On page 343 of *The Planters' Chronicle* of 1915 Mr. R. D. Anstead endorsed the latter treatment; and suggested as an alternative painting the stems and primaries with a mixture of either equal parts of kerosene oil and Tar or of one part of Jeyes fluid and fifty parts of water. The same authority on page 366 of this volume said that good white washes could be made from 7 lbs. of washing soda and 2 lbs. of quick lime dissolved in 10 gallons of water, or from a quarter bucket of quick lime, a double handful of salt, and a lump of tallow—the size of one's fist—thoroughly dissolved in water, which should be added until a suitable consistency was obtained. On page 396 of the same volume Dr. Leslie Coleman wrote that it was of the utmost importance to ascertain (a) whether there are regularly two important broods of the borer each year, (b) whether the Coffee Borer attacks any other tree and (c) whether Coffee is attacked by any other Borer (except of course the well-known red borer—Larva of a moth—*zeuzora coffeae*).

In 1916 speaking on August 10 at the Twenty-third Annual Meeting of the U.P.A.S.I., Dr. Leslie Coleman announced that he had come to the conclusion that the 'two-brood' theory was more or less legendary, and that only the Autumn brood need be taken into account. He mentioned that the Coffee Borer had been found on one other tree which was common in the Coffee district and which was called Kullasudli by the Kanarese. He discountenanced the lime washes so strongly recommended in the past, and thought that the success which had been attributed to their application was in reality due to the fact that scrapping operations had been carried on at the same time. This scrapping and scrubbing, which should be done in October to December, was, he said, the only remedy he could with any confidence suggest; and it should not only eliminate the beetles which were just emerging, but also destroy large number of eggs as well.

On page 579 of *The Planters' Chronicle* for 1917 was published Dr. Coleman's pamphlet on 'How to combat Coffee Borer' which we reproduced in our issue of last week, and which details the scrubbing remedy which he had advocated at the general meeting in 1916.

Four pages in the Report of the Proceedings of the Second Entomological Meeting held at Pusa in February 1917 (published by the Superintendent, Government Printing, Calcutta—1917, price Rs. 3) contain a verbatim report of a discussion on the pest in which Mr. T. Bainbrigge Fletcher, the Imperial Entomologist, Mr. R. D. Anstead, the Deputy Director of Agriculture, Planting Districts, South India, Dr. Leslie Coleman, the Director of Agriculture, Mysore, and Mr. Kunhi Kannan, the Senior Assistant Entomologist, Mysore, took part.

Mr. Fletcher mentioned that there were really three boring pests; The *Xylotrechus quadripes*, the *Zeuzera coffeae*, and the *Collyrinus*; but that the ravages of the two latter kinds were negligible in comparison with the devastation wrought by the first. Dr. Coleman said that he had discovered that the borer fed not only on coffee but also on a tree known as *Olea dioica* which we presume is identical with the *Kullasudli* which he mentioned at the U. P. A. S. I. General Meeting in 1916. Mr. Fletcher stated that on account of their scarcity neither parasites (of which two Hymenopterans had been discovered) nor birds (such as the Blue Barbet) could act as a very effective check; and that chemical deterrents were of even less use. He attributed the fact that rain at the egg laying period ensured a considerable reduction in the number of beetles during the forthcoming season, not so much to the rain washing away the laid eggs, as to the rain impeding oviposition, since the female beetles only flew freely on warm and sunny days. Incidentally we may note that it appears that whenever the female really gets going she can be relied on for no less than one hundred eggs! Mr. Fletcher concluded by saying that he strongly advocated the catching by hand of the adult beetles; and that his experiments in Coorg in 1915 enabled him to assert that the difficulty as regards identification of the beetle which had been experienced by Mr. Kunhi Kannan and by Mr. Anstead could readily be overcome if only the catchers were properly taught. Mr. Kunhi Kannan asserted that the pest retained its larva form for almost twelve months; or for more than double the period which Mr. Pringle had computed some thirty years before.

At the general meeting of 1920 Dr. Coleman again advocated rubbing and scrubbing in October–December. He was able to supplement this advice with the information that (judging from the experiments he was pursuing) a chemical called 'Brunolinum' painted on the stems in December–January, should prove capable of penetrating into the burrows and killing the young grubs.

The Planters' Chronicle of September 13, 1924, contains a circular by Mr. Kunhi Kannan which describes the excellent results attained in beetle-catching experiments on an estate near Saklasapur. Only 540 trees had to be removed in the five acre experimental plot, as against 1,139 trees in the adjacent check plot. The circular concluded by stating that the Mysore Agricultural Department was prepared to furnish trained supervision for beetle-catching campaigns on a limited number of estates in the State, and would even be glad to send full instructions regarding

procedure and labelled specimens (both of the Borer Beetle and of similar beetles with which it might be confused) to the Superintendents of Coffee Estates outside Mysore.

Last year too Mr. R. D. Anstead as Director of Agriculture wrote to Mr. D. G. Munro, then Deputy Director of Agriculture, Planting Districts, that for some unexplained reason Borer attacks seem to come in cycles of years, and asked him to investigate the matter, and report. In pursuance of this letter Mr. Munro obtained from Major Fraser—the Civil Surgeon in Coorg—the opinion that the cycles were caused by the incidences of parasitic enemies. When these were numerous the borer was suppressed, when the borer was suppressed the parasites in their turn decreased, and when the parasites decreased the borers came once again to the fore only to act in due course as 'hosts' for a fresh parasitic horde. Owing to Mr. Munro's departure on furlough however this branch of the investigation has not yet been further pursued.

This précis will doubtless enable a reader to say 'Now "I" know where flies—or rather beetles—go in the winter time'; but we fear it will not tell him how to prevent their going there anymore. Scrubbing and beetle-catching alone appear to have found general acceptance as deterrents, and we have been able to get no information as to the final results of the experiments with 'Brunolium' which Dr. Coleman undertook.

Perhaps some Superintendent who is not too 'bored' with the whole subject, will put Chronicle readers in his debt by describing any preventative operations which in his own experience have attained even a modest measure of success.

COORG PLANTERS' ASSOCIATION

(INCORPORATED)

**Proceedings of a Quarterly General Meeting, held at the Bamboo Club,
Pollibetta, on Thursday, October 29, at 10.30 a.m.**

Present

Messrs. L. Newcome, (*Chairman*), G. R. Pearse, W. A. F. Bracken, J. H. Sprott, W. R. Wright, A. E. J. Nicolls, J. Hume, F. Macrae, C. G. Maclean, C. L. Humphreys, R. Bentley, W. A. Davies, H. Jackson, J. B. Reid, A. S. L. Grove, W. G. L. Parsons, Lt.-Col., W. B. Bucknall, O.B.E., J. S. H. Morgan, C. A. Reid, R. H. B. Harper, N. M. Scholfield and A. F. Magniac (*Honorary Secretary*).

Visitors.—Messrs. Fletcher Norton and D. M. Tew.

Notice calling the meeting was read.

Minutes of last quarterly meeting were read and confirmed.

The Chairman read his report as Delegate to the Annual General Meeting in Bangalore. Various matters were discussed and explained. On the proposal of Mr. Pearse, seconded by Mr. Bracken, the meeting passed a hearty vote of thanks to Mr. Newcome and Colonel Bucknall, for their work as Delegates at Bangalore, and for their very interesting report.

Coffee Cess.—The Chairman stated that all Coffee Associations having decided to support the Mysore Experimental Station, the 2 as. cess for the current year had been called for, and asked members to pay in the same to the Honorary Secretary.

Labour Department.—The following resolutions were put to the meeting and carried unanimously :—

Proposed by Mr. J. B. Reid, seconded by Colonel Bucknall, 'That this Association considers that 6 as. a mile for mileage, as ample, and liberal, for all U.P.A.S.I. officials and planters engaged in U.P.A.S.I. work.'

Proposed by Mr. J. B. Reid, seconded by Mr. W. G. Parsons, 'That this Association considers that the land for building a bungalow for the Labour Superintendent of the Mysore Division, should be disposed of as advantageously as possible, as soon as the lease for the bungalow inhabited by him at present is satisfactorily arranged, and that the lease of the present bungalow be arranged forthwith.'

Proposed by Mr. Morgan, and seconded by Mr. Wright, 'That this Association considers that there is no necessity to grant free passages to wives of U.P.A.S.I. officials.'

The Chairman read to the meeting proposed rules for Coorg regarding absconding coolies, drafted by himself, and asked members to send in their views and suggestions on them to the Honorary Secretary, before next meeting. Labour recruiting areas as regards Coorg were also discussed, and the Chairman proposed that the Honorary Secretary write to the Director of the Labour Department for details regarding Co-operative Labour Societies, with a view to this Association participating.

Redemption of Timber.—Mr. J. B. Reid addressed the meeting on this subject supporting his case by statistics. The matter having been discussed, the following resolution proposed by Mr. J. B. Reid, and seconded by Mr. Harper, was then put to the meeting, and carried unanimously :—'That this Association do approach Government with a view to getting the unequal charges now imposed on Proprietary Planters and Companies in Coorg, in the matter of charges on redemption of timbers reduced and request that the charges may be reduced at a very early date.'

Personal Members Subscription.—Proposed by Colonel Bucknall, seconded by Mr. Nicolls :—'That the present subscription for Personal Members, namely, Rs. 12, remain as at present.' *Carried unanimously.*

U.P.A.S.I. Subscriptions.—The Honorary Secretary asked those members who had not yet paid in their quarterly subscriptions, to kindly do so as early as possible.

Coorg Labour Bill.—This was discussed in Committee.

Trustee on Cochin Port Trust.—Resolved that the Trustee for the Cochin Port Trust be elected by the Active Members of the U.P.A.S.I. Executive Committee by postal vote.

Proposed Rules regarding Payment for Medicines supplied by Dispensaries and Hospitals in Coorg.—This was discussed by the meeting, and

the following resolution proposed by Colonel Bucknall, seconded by Mr. Nicolls, was put to the meeting and carried:—'That this Association whilst regretting that the Government find it necessary to raise the rate of subscription for medicine and medical attendance on estates, agrees to the increase in view of the benefits derived therefrom by the employees on their estates.'

S.I.P. Benevolent Fund.—Various matters were discussed in Committee.

Correspondence.—Read letter from the Tellicherry Chamber of Commerce, regarding the state of the temporary bridge at Kuttupoyya, pointing out the urgent necessity of putting this bridge into immediate repair at the earliest possible date, as traffic was forced to go *via* Mannan-toddy, an increase of approximately 50 per cent to the journey with a corresponding increase in rates of cart hire.

The Honorary Secretary stated that upon the receipt of a telegram from the Tellicherry Chamber of Commerce regarding the state of the bridge, and its having been washed away, he had at once brought the matter to the notice of the Commissioner of Coorg.

Read letter from the Editor of the *Madras Mail*. This was discussed in Committee.

With a vote of thanks to the Chair, the meeting terminated.

A. F. MAGNIAC,
Honorary Secretary.

L. NEWCOME,
Chairman.

LETTERS TO THE EDITOR

Planters' Benevolent Fund

THE EDITOR,

'PLANTERS' CHRONICLE,'
MADRAS.

SIR,

Looking through the C. P. A. Year Book for 1924 one cannot help being struck with the generous donations given to the Ceylon P. B. F. by proprietors. Practically every Ceylon Company makes an annual contribution and one cannot understand why S. Indian Companies do not do the same. Rs. 100 to 200 as annual donations from each Company or proprietor would not affect profits but would make all the difference to the fund.

U.P.A.S.I. Sports Club.—Here is another fund deserving of support. The recent appeal of Mr. Hawkins for more members will not, one hopes, fall on deaf ears; but the fact remains that the Club does not seem to have 'Caught on' so far in some districts despite strenuous efforts by District Representatives. Here again employers might assist by offering donations on condition that the employees joined up. I would also suggest that the Secretary personally address non-subscribers. The main difficulty is the great distances between districts; but it will be a great pity if this stands in the way of the Club's being a great success, which it certainly deserves to be.

November 14, 1925,

'Yours etc.,
'X.'

Export of Indigenous Manures

THE EDITOR,

THE PLANTERS' CHRONICLE,

MADRAS.

SIR,

The question of the export of manures is under discussion by the Executive Committee, acting on the resolution carried unanimously in August last. However, as a precedent has now been established of publishing a part of this in the *Chronicle* (p. 820 *et seq*); and that a part calculated, at a cursory glance, to discourage any further action being taken, I must ask you in fairness to publish the other part, viz., my two replies to the Reference, suggesting what steps might be taken. Incidentally this 'survey of efforts' was called for not by the Executive Committee, but suggested to the Secretary by one member of it.

To my replies to the Reference (reproduced below. Ed.) I would like to add a few remarks.

- 1893-1894. Resolution applied to bones only, and in Planting Interests only. Sent to Government. Rejected. Finished.
1895. 'Free Trade' dragged in, the word itself being a hollow fraud and calculated merely to drug thought. Untaxed exchange of all commodities between two countries has never existed and never will, and one of the results of a false name is 1½ millions unemployed in England to-day. India does not mean to endure this much longer.
1896. Nil.
1897. Resolution carried by 11 to 8 after much opposition. No action taken.
- 1898-1905. Nil.
1906. Discussion but nothing done.
1907. Nil.
1908. Nil.
1909. Nil. Cloven hoof of vested interests appears. Of course no one but an idiot ever expected export to cease altogether one year, nor in 20 years.
1911. Waking up at last. Some reasons given and some sense shown, with the result that Government begin to consider.
1912. Hands up; or 'defeatist' policy again. 'The case is hopeless.' It is a wonder more knighthoods were not distributed during this period.
1913. A very good report. Adopted, and presumably pigeon-holed,
- 1914-18. Nil.

1919. Board of Agriculture begin to sit up and take notice.
1920. Mysore Planters act alone. Considerable sympathy shown.
1921. A resolution, spoilt by No. 8, which is idiotic.
1922. The first year to count, and an important one, referred to in my answer to Reference.
1923. Quite useless.
1924. Quite useful.

Analysed, these Herculean efforts make a poor show. I have no hesitation in saying that a simple one clause bill often requires more effort to get it through a Legislature than was exerted during these 33 years. If they had gone about everything in the same way, the Upasi would have produced the same results in everything after 33 years, namely, exactly nothing.

As regards the remarks at the end (*Planters' Chronicle*, p. 825) the 'more and more weighty arguments' have escaped me, unless they are directed against the 'man of straw' put up, i.e. to stop all exports at once.

Oilseed crushing and foreign countries (in which Germany is conspicuous) putting on heavy duties on manufactured oils.

Why, what sorry stuff is this. It pays other countries to export our oilseeds across half the world, to pay enormously higher rates than India for buildings, labour, and land and yet here it is a 'failure.' What figures are there to support this? Who were the managers or mismanagers?

And India in the dominating position, producing vast quantities of vegetable oils that these countries must have, is tamely to submit to their dictation. Is *this* Free Trade? As old Dr. Johnson said, 'endeavour to clear your mind of cant' and I may add of 'cant' also.

It has occurred to me that virgin tea land requires no manure for many years; and that tea and also rubber usually use imported manures like nitrate of soda. But I understand that the Upasi principle is 'each for all and all together.' Entirely owing to unrestricted exports the manures that are vital to the coffee industry, such as bone, fish and poonacs have all but reached a prohibitive figure. In the case of the ryot to whom these are of even more importance, as shown in second answer, the price has already reached a point at which he can only use them at a loss. I cannot believe that it is mere selfish and narrow self interest that has held up the question for so long, but rather an unreasoning despair. The Upasi can now act under much brighter auspices than ever before.

COWCOODY, SOMWARPET,

November 13, 1925,

Yours faithfully,

(Sd.) L. NEWCOMBE.

REPLIES TO THE REFERENCE

A. A Scheme to conserve Manures for Indian Use

I am sure we ought to be very grateful to Mr. Waddington for the trouble he has taken in compiling the figures of export both of manure and oilseeds.

I consider the steps we should take to be :

1. To take up in the Report of the Indian Fiscal Commission, 1922 (top para p. 5 of the Reference) 'at the same time we fully realize the importance,' etc. and urge a *small* export duty on both oilseeds and manures, the proceeds to be devoted

(a) To the encouragement of the use of manures.

(b) To the establishment of trial oil mills.

A duty, however small, once in force and proved a success, tends to be increased gradually. Under the scheme, increased use of manures in this country would go, *pari passu*, with increasing duty and decreasing export.

(a) An export duty of only Re. 1 per ton would produce 3 lakhs or of Rs. 2, 6 lakhs per annum. This could no doubt be made to fall on the exporter. Few countries are nowadays so obliging as India in parting with her manurial wealth, and few countries allow such a suicidal policy.

This amount could be distributed among all the various agricultural stations in India to be used for the purpose named.

(b) An export duty of only Re. 1 per ton on oil seeds (assuming that all the important oilseeds are included in the statement) would produce 13 lakhs or of Rs. 2 nearly 27 lakhs per annum.

This would be enough to establish several oil mills annually, which could be run, in the first place, by Government and eventually handed over to private owners, in the same way that fish curing, and oil soap factories were started.

The fact that one oil mill was started and was a failure proves nothing. We know nothing of the all-important question of management or mismanagement. The fact that nearly all importing countries place such enormous preferential duties on the oil as against the oilseeds only proves what enormous importance these countries attach.

1. To getting the poonacs for manures.

2. To giving employment by the crushing.

India is the producing country and should be in the dominant position, and not tamely submit to these—to her—ruinous policies.

These countries would gladly take the oil alone, if they were obliged to, to the detriment of profiteers and foreign capitalists alone.

11. Agriculture is now a transferred subject. Steps should be taken to interview and interest Members for Agriculture and Indian Members of the Central Legislatures on this subject. It may be pointed out that the allegation that capitalists are draining India of her wealth, while ridiculous as a whole, is true in this particular. Statistics should be asked for showing the crops *per acre*, with various crops in different parts of India during the last 20 or 40 years (tracts under the influence of agricultural stations being barred). I should be surprised if a graph of these did not show a steadily declining tendency.

It may be asked 'how would this scheme benefit the planter'? Directly and at once very little, but gradually and in common with the

landowner and cultivator, he would benefit largely. (1) The price of manures would cease to rise excessively and would stabilize itself. (2) Firms would be estopped from quoting exorbitant rates on the ground of scarcity, they having already exported the greater portion overseas. The allegation that the producing ryot would suffer by an export duty is unsound. In the first place, his price would not appreciably fall, while he would benefit far more by being taught to use more manure on his own land.

In the second place, it is not the ryot who gets the profit from high prices but the exporting capitalist.

B. Comments on the Agricultural Departments' Digests Nos. 33 and 36 of 1925

Digest of the Department of Agriculture, Madras, No. 33, March 1925.—

P. 3. 'Green leaf and bone meal is the most economical manure to use for paddy in deltaic soil of average fertility, provided the price of bone meal does not exceed Rs. 100 per ton.'

'The use of fish guano on soil of average fertility results in loss. There is very little doubt however that on poor land this manure can be used with advantage, provided the price does not exceed Rs. 120 per ton.'

These remarks are the result of exhaustive experiments on paddy.

P. 2. 'The usual manure for paddy in the district (Samalkota) is cattle manure or village earth applied at intervals of a number of years, but this does not provide phosphate in sufficient quantity to make up for the deficiency in this soil ingredient which is known to exist in deltaic soil.' *Digest No. 36, June 1925.—*

P. 9. 'Owing to the high cost of fuel, the bulk of the cattle manure is never applied to the land.' It was found that phosphate was present in insufficient quantity for maximum crop production and this made it probable that an artificial phosphate manure could be applied with advantage.'

P. 7. 'In later years the question of the optimum application of groundnut cake and fish guano has again been taken up and owing to a constant rise in the cost of the latter and the limited quantity available the experiment during the last two years has been conducted with groundnut cake and green manure only.'

'The first experiment was a comparison of farm yard manure and green manure with groundnut cake. The latter is a valuable manure which ten years ago cost only Rs. 4 to Rs. 5 per bag of 164 lb., but price has since risen. It can still be brought in large quantities in spite of its increasing export to Europe as cattle food.'

Bone meal is now quoted at 120/- per ton at the works. I have a quotation for fish guano at 115/- per ton, and this is probably exorbitant, if it is a good sardine year. But it has sometimes been 140/- per ton during the last few years. To these prices transport charges have to be added, except in the case of the ryot actually living on the Coast. It seems evident therefore that, entirely owing to export, these manures have risen to a price at which the ryot cannot use them except at a loss.

Groundnut poonac, apparently, it still pays to use, but this has none of the phosphorus so essential and so lacking in most Indian soils, and with the 'increasing export to Europe' the price will soon place this manure in

the same category as the other. The ryot will then be left with only (1) his green manure, and (2) the cattle manure, small in quantity and very inferior in quality.

As regards fish, of course only the fishing castes benefit by a rise in price. But it is very doubtful if even they benefit appreciably compared with the merchants and exporters. The same remark applies to those castes that will handle bone, and even more so. They can do nothing without a crushing or steaming plant, which of course they cannot afford, and it is very doubtful whether, by the time they have collected the bone and carted it to railhead or to the works, any large profit accrues to them.

(Sd.) L. NEWCOME.

DISTRICT NOTES

Shevaroy Hills

Obituary.—Our thanks as a community are due to the Editor of *The Planters' Chronicle* for his condolences and expressions of sympathy, in the issue of the 7th instant, with Mrs. W. Rahm, her son and relatives in the loss that they and we have suffered by the death of Mr. Rahm. It is seldom that a man succeeded to the extent that he did in endearing himself to everyone; and though he was naturally of a retiring disposition his friendly presence could always be felt wherever he was, so that he will always be sadly missed by those who knew him.

Motor Service.—There is a rumour that an opposition service is to be started. In a small community like ours there is no room for competition in an enterprise of this nature, as the only time when the passenger traffic is sufficient to make it pay is during the 'season' which lasts for only three months. However this may be, we certainly think the Postal authorities ought to come to some arrangement, and get out Mails up by motor instead of continuing the antiquated method of employing jutkas from the station to the foot of the hills and runners for the rest of the journey. A motor lorry service has been started recently, and seems to be doing good business in transporting fruit to the plains.

Shevaroy Planters' Association.—There has been an accession of 1,000 acres to our membership recently owing to planters realizing the necessity of pulling together, now that Government are depriving us of the means of enforcing agreements between employer and employed. The Secretary and Chairman of the U.P.A.S.I. are expected to pay us a visit shortly.

Prices.—Sales of parchment have been effected at Rs. 21-8-0, ex-store per struck bushel and Rs. 20 to Rs. 20-12-0 for forward delivery. Business has also been done at Rs. 92 per cwt. cured and Rs. 85 ex-curing and ex-bags f. o. r. Coimbatore. There is still a very poor demand for common sorts, but any planter with stocks of these would be well advised to hold on till the end of this crop, as there is every likelihood of a severe shortage in these sorts owing to the small crops and good opening this year.

Coffee Pests.—Bug has been making an effort to multiply but not very successfully, as the blue fungus is still plentiful and likely to thrive in the damp weather we are having at present. Leaf disease has increased a bit; but on the whole it is a very mild attack that we are having this year, and the splendid condition of the wood to be soon everywhere promises bumper crops next year.

Sport.—Our local *shikaris* are taking a rest; but three boys from the Montfort School entered for the Inter School Sports at Salem and carried off the Shield and Cup and also several money prizes. The School Hockey team is going down to-morrow for the Annual Hockey Tournament held at Salem and they hope for better success than they met with last year when they got into the finals with the Railway team which carried off the cup. But whether they win or loss they won't come up in the motor lorry; as they had a sad experience last time when the sides of the lorry were lined with boys parting with their breakfasts.

Weather.—The N. E. Monsoon has not so far been a very great success. The last 4 days have been drizzly and misty, but with very little rain though it has been sufficient to make our roads impossible for motor traffic. Yesterday however we had a smart shower so we are living in hope. Streams are none too full and unless we have some heavy rain there will be no water for pulping on most estates after December; though probably it will not be needed this year.

General.—Coffee crops have ripened remarkably early. Most of us are half through our picking, and there will be very few who will not finish picking by the end of next month. Estimates are not likely to be realized on the majority of estates.

It is possible that we may get our permanent Padre by Christmas.

November 11, 1925.

E. H. A. T. D.

South Coorg Notes

It is with deep regret that I have to chronicle the sad news of the death of Mr. A. H. Jackson, Proprietary Planter, Dubarry Estates, Pollibetta, Coorg, on the night of November 12, 1925.

South Coorg has lost one of its oldest planters by his death. He was born on November 14, 1862—63 years ago. He came out to South Coorg in 1876, and spent all his life in this district. He was of very active habits, and took a great pride in his estates. Latterly he was not very well, but, never lost touch with his work. He was out at work on Wednesday morning, the day before he died. He was a staunch friend, and well liked by his subordinates. Mrs. Jackson died three years ago. Of the family remaining Mr. Howard Jackson (son) is in Coorg, Colonel Allen Jackson, another son, in England, in the R.A.F. and two daughters in India, are left to mourn his loss.

The funeral was held at the Pollibetta Church on Saturday morning (14th) at 10 a.m., the Rev. Brunt taking the service. A large gathering assembled to pay their last tribute to a worthy gentleman.

Those present were:—Mr. Howard Jackson, Mrs. Wright, Mr. T. J. Tasker, I.C.S. (Commissioner of Coorg), Dr. Thornton, I.M.S., Messrs. Bracken, Hume Gerrard, Scotland, C. A. Reid, Pettingill, Morgan, Nicholls, Pease, Richardson, Harrison, Maunn, Koljo Wright, W. Wynyard Wright, Maclean, Macrae, Cunningham, Harrison, F. W. Richardson, Tew, Scholfield, J. B. Reid, Harper, Roberts, Bentley, Rue, Parsons and Davis, Mr. and Mrs. D'Vaz, Miss D'Vaz and several others, including the Indian staff of the estates belonging to the late Mr. Jackson, and a very large number of other Indians who knew him well, and had always been well treated by him.

Your S. Coorg Correspondent.

BANGALORE—CENTRAL HOTEL, 'The Best in the Station.'

COMMERCIAL AND METEOROLOGICAL

I. The Rupee Exchange for the week ending November 14th, 1925

Bank Selling Demand Draft on London

9th	10th	11th	12th	13th	14th
18 5/32d.	18 5/32d.	18 5/32d.	18 5/32d	18 5/32d	18 5/32d

II. Summary of latest Market Reports and Prices to hand :—

(a) Some of the higher London Prices—

Best prices realized on the London Market			Average prices obtained for tea					
Mark	Pkgs	Price	District	Week ending October 24, 1925	January 1 to October 24, 1925	January 1 to October 24, 1924		
		s. d		s d	s d.	s d		
(1) TEA (WEEK ENDING OCTOBER 24, 1925)			N. India	1 6.69	1 5.12	1 7.09		
(a) <i>Anamallais</i> —			S. India	1 6.42	1 5.29	1 6.53		
High Forest ...	106	1 7½	Ceylon...	1 10.57	1 7.68	1 8.30		
Thayamudi ...	226	1 6½	Java ...	1 2.26	1 0.68	1 3.02		
(b) <i>Central Travancore</i>			Sumatra	Nil.	1 4.17	1 5.83		
Kuduakarnam ...	85	1 8½	Nyassa-land.	11 71	1 1.93	1 4.43		
Glenmary ...	120	1 7	Total	1 7.28	1 5.57	1 7.11		
(c) <i>Kanen Devans</i> —								
Vagavurrai ...	119	1 9½						
Letchmi ...	171	1 9						
(d) <i>Mundakayam</i> —								
Yendayar ...	78	1 5½						
(e) <i>Nilgiris</i> —								
Nonsuch ...	108	2 0						
Prospect ...	228	1 10½						
(f) <i>South Travancore</i> —								
Merchiston ...	50	1 3½						
(g) <i>Wynaad</i> —								
Chulika ...	91	1 3						
Elstone ...	80	1 3½						
(2) COFFEE (WEEK ENDING WEDNESDAY, OCTOBER 28)								
<i>Nilgiris</i> —								
Bellhutti PB ...	4	160 0						
Oolicut PB ...	2	156 6						
Woodlands PB ...	3	160 0						
„ Extra ...	21	155 0						

(b) SPECIAL COFFEE CABLE

LONDON, NOVEMBER 18, 1925

'A' COFFEE

145 s. PER CWT.

NOMINAL QUOTATION

(c) *Precis of reports on London Markets received on November 16 and covering the week ending Wednesday, October 28 :—*

(1) *Tea.*—South Indian teas met with good all round competition and realized an advance of almost 1d. per pound. As the averages on the previous page show in comparison with those published on page 853, last week, no other kinds except Javas experienced so great an increase in the average price.

(2) *Rubber.*—The market was quieter during the week under review ; but the price of ' spot ' remained round about the 4s. mark, and there was no indication of any likelihood of an early 'set-back.' The stocks decreased by about 57 tons.

(3) *Coffee.*—For the first time for many weeks we are able to record on the previous page the sale of four parcels of South Indians all of which had been bought last season at high c.i.f. prices. Eleven other parcels of Nilgiri Coffee were also put up to auction but withdrawn as buyers would not offer a price sufficiently high to enable the original purchaser to unload except at a considerable loss.

Both export and Home consumption continues to be small and consequently the present value of low medium to good medium qualities is little more than a nominal one. On the other hand a reasonable period of continental activity would probably soon stimulate the present stagnation of demand.

III. Weekly Rainfall Statement

From April 1, 1925, up to and including Saturday, November 14, 1925

Stations are arranged in order approximately south to north and those not in planting districts are shown in small capitals.

Stations	W.	P.	Total	Stations	W.	P.	Total
1. Kalthuritty.	6.47	80.93	87.40	18. Naduvattam	3.47	76.71	80.18
2. *Tenmalai.	9.95	84.26	94.21	19. Coonoor ...	N.R.	30.66	N R.
3. Mundakayam.	4.51	142.82	147.33	20. Kotagiri ...	11.98	33.29	45.27
4. *Peermade.	4.72	161.03	165.75	21. Ootacamund	6.05	35.74	41.79
5. Twyford				22. Yercaud ...	2.23	37.09	39.32
Estate ...	N.R.	194.47	N.R.	23. Devala ...	3.67	124.20	127.87
6. V'periyar ...	5.35	70.29	75.64	24. Gudalur ...	2.78	68.73	71.51
7. Kalaar ...	4.72	201.44	206.16	25. CALICUT ...	9.09	118.65	127.74
8. Chittuvurra	10.07	36.88	46.95	26. Kuttiyadi ...	7.64	163.79	171.43
9. BODI'KANUR	6.80	11.09	17.89	27. Vayittiri ...	5.19	151.47	156.66
10. COCHIN ...	9.28	93.84	103.12	28. Manantoddi.	4.67	103.47	108.14
11. *Mooply ...	5.70	102.87	108.57	29. Billigiris ...	3.65	52.16	55.81
12. Mooply Valley				30. *Sidapur ...	6.15	64.54	70.69
Rubber Co.	5.85	114.09	119.94	31. Pollibetta ...	6.25	74.43	80.68
13. Pachaimalai	3.07	116.70	119.77	32. Somwarpett	5.99	74.32	80.31
14. Mudis ...	6.72	187.74	194.46	33. Ballupete ...	3.24	68.14	71.38
15. POLLACHIE.	3.00	20.41	23.41	34. MANGALORE.	1.40	135.72	137.12
16. Manjeri ...	7.35	115.93	123.28	35. MADRAS ...	7.35	35.00	42.35
17. Nilambur ...	84.4	93.71	98.55				

W = During the week.

P = Previously.

N.R. = No return.

* = U.P.A.S.I. Ex. Station

The Planters' Chronicle

Recognized as the Official Organ of the U. P. A. S. I. (Incorporated)

Managing Editor's Postal Address: POST BOX 155, MADRAS

Do. do. Registered Telegraphic Address: UPASI, Madras

VOL. XX, NO. 48] SAT., NOVEMBER 28, 1925 [PRICE, AS. 8

CONTENTS

	PAGE		PAGE
Editorial Notes ...	871	District Association Meetings—	
The Blind Receive Their Sight.	873	South Travancore ...	879
Letters to the Editor—		, Wynaad ...	881
St. Dunstan's ...	874	U.P.A.S.I. Sports Club ...	882
The Ex-Services' Association ...	875	The Spotting of Crepe ...	883
A Reminiscence ...	875	Commercial and Meteorological ...	885
Planters' General Provident Fund ...	875		

EDITORIAL NOTES

Queen Alexandra was of the first generation of the Royal Family which was able, owing to improvements in transport, to visit in person large tracts of the British Empire Overseas. Thus she saw something of Planters at first hand, in the course of her travels as Princess of Wales.

It is true that Royalty as a rule only sees Planters in their off-hours; but by observing them at their play it has gained a very fair idea of them at their work. It has always, as opportunity offered, acknowledged the *bonhomie*, the *esprit de corps*, the keenness, and the clean straight driving power of the Community responsible for the Plantations on which no inconsiderable portion of the Empire's prosperity depends.

Queen Alexandra, we may be sure, was no exception to this rule, and the Planters of the Empire were doubtless often in her thoughts. Their heartfelt loyal and respectful sympathy will go out to their King and Emperor in his grievous loss.

Sir Charles Higham, who has been entrusted by the Indian Tea Cess Committee with a sum of £ 40,000 to be spent in advertising Tea in the American Newspapers during the current year contributes to *T. P.'s & Cassell's Weekly* an interesting account of his meteoric career. His first job was in a chemist's shop where he worked sixteen hours a day for 12s. a week. In the ensuing fifteen years he held no less than 29 different jobs, and in one interval between two of his short-lived appointments enlisted in the United States Army to fight against Spain. Eventually he decided that the Eastern States did not give him sufficient scope, and tossed up to determine whether he should migrate to London or to Los Angeles. Heads it was; with the result that he is to-day a world wide celebrity at the early age of 48. Had it been tails; there would of course have been a different tale to tell. Los Angeles, though we doubt it, might have gained a potential Charlie Chaplin or Harold Lloyd; but the Indian Tea Cess Committee would have lost the super-propagandist who is directing their campaign to-day.

On page 784 of our issue of October the 24th we commented on the rapid rise in the London quotations for first latex crepe *Rubber Vagaries* spot which was $3/6\frac{1}{2}d.$ on the 2nd of October and $4/0\frac{3}{4}d.$ on the 17th. Since then until a fortnight ago the price remained round about 4s. which was the actual quotation on November the 12th. In the interim the highest price had been $49\frac{1}{4}d.$ on October the 21st, and the lowest $46\frac{1}{4}d.$ on November the 5th. The London quotation on the 16th instant, however, was $54d.$: an advance of $6d.$ on the quotation of four days before. All forward quotations rose $3d.$ a lb. in sympathy, and contracts were made for equal monthly deliveries throughout 1928 on the basis of $28d.$ per lb. The following day, Tuesday the 17th, the spot price dropped to $51\frac{1}{2}d.$; but the latest quotation we have received at time of going to Press is dated London the 23rd instant and again cites $54d.$ per lb.

Sir Donald Ross, K.C.B., K.C.M.G., F.R.S., Director in Chief of the Ross Institute and Hospital for Tropical Diseases, in an address to the Ceylon Association in London, with the *To Fight Malaria* President of the Association, Mr. G. H. Masfield, in the Chair, urged the immediate appointment of Estate Malarial Officers who would each work exclusively at suppressing the Anopheles on from 20 to 30 Estates. Each Estate he pointed out would only have to find 1/20th or less of the salary of the whole time expert, and—apart altogether from humanitarian considerations—would be abundantly recouped for its outlay by the resultant increase in the physical efficiency and hence in the working capacity of its Labour Force. This, he said, was not conjecture but a statement of fact—instancing what had been accomplished at Ismalia, in the Panama region, by Sir Malcolm Watson in the F.M.S., and by Dr. Clemesha on South Indian Estates. 'It's an ill wind that blows nobody good,' and Sir Donald incidentally remarked that his researches had proved that the Anopheles was the sworn foe of the syphilitic germ; and that to-day hundreds of sufferers from venereal disease are being inoculated at his institute with malaria to their complete cure, for the battle between the rival germs is so fierce that there are no survivors—they kill each other off!

'THE BLIND RECEIVE THEIR SIGHT'

The greatest, perhaps, of all poems on the Great War makes our dying soldiers say,—

'To you from falling hands we throw
The torch. Be yours to hold it high!
If you break faith with us who die,
We shall not sleep—though poppies grow
In Flanders fields.'

Dying Words, especially of those whose careers are being cut short by inexorable Fate, have always borne great weight. It surely will be supremely so with the 'if you break faith' of 'our glorious dead.'

By cenotaphs, monuments, and plaques they have been commemorated throughout the Empire; and rightly commemorated, so that in successive generations 'he who runs may read'. But these are not the sole—indeed they are obviously only the lesser—way in which we can acknowledge our debt and keep 'our faith'. Against any such contention the men whom they are intended to honour would be the first to protest. They would, in their modesty and self-effacement, be slow to say, 'These ought ye to have done'; but they most certainly would thunder 'and not to leave the other undone' with all the emphasis at their command.

Part of 'the other' is undoubtedly St. Dunstan's, whose Chairman Capt. Ian Fraser, C.B.E., M.P., himself a blinded Officer, sends us by this mail his annual report and his annual appeal.

From many points of view the lot of those who sacrificed their physical well being, their limbs, their hearing, or their sight is more unhappy than that of those who were called on for their lives. The latter have put the war behind them: they have passed gloriously through the ordeal, and have emerged on the other side. The former still bear in their bodies the marks of Armageddon: all of them have to face life deprived of what makes it most worth living, and many of them have to face what is practically a living death.

So long as it is possible to save even one survivor from that last appalling fate, we must continue to give freely of our time, our money and our skill. Thus alone can our debt be paid, and our dead ensured their 'sleep'.

St. Dunstan's give those who support it the privilege of helping to make it possible for time and skill to be unsiftedly devoted to the relief of those who have lost their sight as a result of the war. Over 30,000 men were discharged from our Army with damaged sight. A number of them are becoming totally blind every week. St. Dunstan's, though it cannot actually restore the use of their eyes, can and does make their other faculties wonderfully efficient substitutes for doing the work which the eyes ordinarily perform. Its graduates include the winner of the first Rhodes Scholarship at Oxford, Hotel Proprietors, Chartered Accountants,

Correspondence Managers, Stenographers and Mail Order Experts. Thus practically, if not literally, the blind—over 2,000 of them up to date—have received their sight. The St. Dunstan's motto 'Victory over Blindness' is not misplaced.

This year, thanks to a handsome legacy which with other smaller bequests furnished £96,000, the revenue exceeded expenditure by over £20,000. It is therefore evident that without this windfall the expenditure would have exceeded the income from recurrent sources such as Interest, Subscriptions, and organized Collections by some £75,000; and that a big increase in subscriptions will be necessary if the record of the Institution—that since its foundation in 1915 it has never refused help to a single blinded Officer, non-commissioned Officer, or Man from the United Kingdom or the Dominions overseas—is not to be impaired. In these circumstances the Secretary asks us to emphasize that drafts and money-orders are hoped for, not only from the well-to-do but also from those who can only afford a Junior's mite, and should be sent to 'The Treasurer, St. Dunstan's Head-quarters, Inner Circle, Regent's Park, London, N. W. 1'.

LETTERS TO THE EDITOR

'St. Dunstan's'

THE EDITOR,

THE 'PLANTER'S CHRONICLE',

MADRAS.

SIR,

I have much pleasure in enclosing herewith copy of the Tenth Annual Report of St. Dunstan's.

The Press of the whole Empire have always regarded these annual records of our activities as worthy of prominent review, and I am sure we may again count upon your help in directing your readers' attention to this account of our stewardship.

May I say that the way in which public sympathy and support for our work has been maintained gives us confidence that the permanent character of our responsibilities is widely recognized. It is evidence, we feel, that the people of the Empire are determined that not only shall the men who are still going blind as the result of their war service have equal opportunities with their earlier handicapped comrades, but that our pledge for life-long after-care of all war-blinded men shall be fully redeemed.

We shall be grateful if you will emphasize that as we depend entirely upon voluntary support, any future decrease in this must jeopardize the completion and efficiency of the services we can render our men.

May I take this opportunity of thanking you for the always-ready assistance you have given St. Dunstan's in your columns in the past?

INNER CIRCLE, REGENT'S
PARK, LONDON, N. W. 1.

October 28, 1925.

Yours, etc.,
IAN FRASER,
Chairman, 'St. Dunstan's'.

The Ex-Services' Association

THE EDITOR,

'PLANTERS' CHRONICLE',

MADRAS.

SIR,

I have pleasure in acknowledging a cheque for Rs. 340-2-0 received from Mr. J. W. Gwynne in response to an appeal from me for the Ex-Services' Association. Of this sum Rs. 310-2-0 was collected at the Meppadi Church on Armistice Day, and Rs. 30 for sale of poppies. The cheque has been handed to the Honorary Secretary, Ex-Services' Association, and I feel sure he is as grateful for this most welcome donation towards the funds of the Association, as I am to Mr. Gwynne and all those who have so kindly responded to my appeal.

7 INFANTRY ROAD,
BANGALORE,

November 17, 1925.

Yours, etc.

HELEN WALLER-SENIOR,

Presidency Church of Scotland Women's Guild.

A Reminiscence

THE EDITOR,

'THE PLANTERS' CHRONICLE',

MADRAS.

SIR,

I wonder if Mr. Newcome knows the old Scotch story of a swain who once remarked to his girl 'I cum, ye mind, I cum to see you on Sabbath?' 'Ay, John!' 'And on Monday?' 'Ay, John!' 'And on Tuesday?' 'Ay, John!' 'And every night since then?' 'Ay, John!' 'Weel, Jean; do you no' begin to smell a rat?'

Yours, etc.

'ANTI-NEWCOME'.

GENERAL PROVIDENT FUND FOR PLANTERS

The following paragraph appeared in the report which the Executive Committee of the U.P.A.S.I. placed before the Annual General Meeting held at Bangalore in August last :—

'The Association has taken no further steps in this connection finding the difficulty owing to many of the more important Companies already having such funds established insurmountable, but the matter has been strongly taken up by the Rubber Growers' Association in London who have appointed a Committee to investigate and report on the matter, and it is not doubted that some generally acceptable scheme will be evolved. When the scheme is published this Association will probably find that it is possible to extend it to the planting community of Southern India or to start a similar scheme here.'

We publish below for the information of our readers with due acknowledgements to the Editor of *The Planter*, Kuala Lumpur— the report of the Special Committee which the Rubber Growers' Association formed under the Chairmanship of Mr. Macfadyen to investigate thoroughly the

possibilities of a provident fund scheme drawn up by the Incorporated Society of Planters in the F.M.S.:—

1. As our terms of reference clearly implied general agreement on the part of the Council that a Superannuation Scheme of some sort is called for in the Planting Industry, and that the present is an opportune moment for promoting one, we have confined ourselves to deciding (a) the type of scheme best suited to the nature of a planter's employment and (b) the details of the particular scheme to be recommended.

2. We have examined numerous schemes which aim at providing for sickness, old age and death in particular professions or businesses, but have decided that a pension scheme would be too complicated for our purpose. The alternative is a contributory thrift scheme of some sort, providing benefits either by means of (a) insurance policies or (b) a specially constituted Trust. After much deliberation we have decided that, for the following and other reasons, a scheme for planters should not depend *solely* upon insurance, viz.:—

(a) In the event of a planter being out of employment for any length of time, payment of premiums would probably be discontinued and in many cases policies would be surrendered.

(b) A planter in continuous employment would have to take out supplementary policies on each rise of salary. If at any stage he had to accept a lower salary, maintenance of the policies would become a difficulty.

(c) Having regard to past vicissitudes, employers would not feel able, in many cases, to commit themselves to indefinite continuance of payments with no right to terminate the liability on due notice.

(d) As planters are ordinarily resident outside the United Kingdom, the income derived from funds invested on their behalf would be free of British Income Tax and the benefits under an economically administered independent fund should be superior to those derivable under insurance.

3. As, however, the benefits under an independent fund would be small during the early years of membership, we have decided that some provision should be made for death at an early stage and the scheme we recommend provides for an endowment insurance policy of £800 being taken out on behalf of each planter during the term of his first period of employment. This will involve a small sacrifice of total benefits, on the average, in return for superior security.

4. We gave full consideration to the view, influentially advocated, that any scheme should be comprehensive of all tropical planting industries wherever situated; but finally decided that, both for administrative and other reasons, each country should have its own scheme, and we are confining ourselves for the present to putting forward a scheme for Malaya, which scheme, however, is not restricted to Rubber planters.

5. For taxation reasons it will be necessary for the administration of the Fund to be located in the East, but to secure the greatest stability and to command the widest support, the right to nominate and replace the administrators should be reserved to the Rubber Growers' Association. In the exercise of this power no doubt the Rubber Growers' Association will aim at selecting a body fully representative of both employers and employees. The first Board of Trustees might be composed of (a) a leading Banker, (b) a leading Lawyer, (c) a representative of the agency houses, (d)

two Trustees to be named after consultation respectively with the Planters' Association of Malaya and the Incorporated Society of Planters. The latter Society has organized and ably represented the opinion of working planters in regard to the whole question of a provident fund and we have derived much advantage from the presence in this country during the later part of our deliberations of Mr. J. S. Arter, the Society's Vice-Chairman.

6. We provide for the Society being incorporated in Malaya by special enactment. We contemplate the investment of the Fund being entrusted by the Trustees to a bank or Trust Company of approved standing; that a firm of Chartered Accountants be engaged to undertake the book keeping and secretarial work and that independent Auditors be employed.

7. The basis of the scheme recommended is contributions of 5 per cent of salary and leave pay by planters, and a similar amount by their employers. We decided against recommending larger or varying contributions.

8. No table of probable benefits is included in our proposals, as any such table might prove misleading. The powers of investment are limited to home and local trustee securities and bank deposits.

9. We have been assured that over 1,000 members of the Incorporated Society of Planters may be counted upon to join the Fund, leaving out of account the comparatively few cases of those who are already members of separate provident funds. The enquiries we have made as to the probable cost of secretarial services, etc., have satisfied us that, if there is anything approaching the same support for the scheme on the part of employers, the cost of administration will be reasonable.

10. Details of the scheme recommended will best be gathered from perusal of the rules attached to this report. These rules have been examined from the legal and accountancy points of view respectively by Messrs. Stephenson, Harwood and Tatham, the Solicitors to the Rubber Growers' Association (in consultation with Counsel) and Mr. H. P. Church.

11. We have also to acknowledge a debt of gratitude in regard to the original drafting of the scheme to Messrs. J. Mitchell Thom, W. F. MacLagan, Charles Mann, and M. L. Crandon Gill, who voluntarily placed their services at our disposal.

12. We recommend for special consideration that, if the scheme meets with approval, the cost of administering it for the first three years should be undertaken by the proprietors of estates.

13. All our recommendations are unanimous.

(Signed) E. MACFADYEN (*Convener*).

W. D. CAMPBELL.

W. DUNCAN.

W. GREENHILL.

J. G. HAY.

H. ERIC MILLER.

E. B. SKINNER.

FRANCIS M. VOULES.

The Proposed Rules

1. **TITLE.**—The Fund shall be styled 'The Malayan Planters' Provident Fund', in these rules referred to as 'the Fund'.

2. INCORPORATION.—The Fund shall be subject to such regulations as may be imposed by the law in Malaya incorporating it.

3. ADMINISTRATION.—The Fund shall be vested in Trustees in these rules referred to as 'the Trustees'. They shall be persons not ordinarily resident in the United Kingdom, and in the event of any Trustee becoming ordinarily resident in the United Kingdom he shall upon it being established to the satisfaction of a majority of the other Trustees that he is so resident *ipso facto* vacate the office of Trustee, and the giving of a notice signed by a majority of the other Trustees addressed to such Trustee that in the opinion of such majority the Trustee is so resident shall be sufficient evidence that the fact of such residence has been established to the satisfaction of the majority of the other Trustees.

The number of Trustees shall be not less than 5 nor more than 7. The appointment of Trustees shall be vested in the Council of the Rubber Growers' Association (Incorporated) hereinafter referred to as 'the Association' which term shall include any other Company or Association which shall under the provisions hereof be substituted for the Rubber Growers' Association hereunder. The Association shall also have the power to fix the term for which each of the Trustees shall hold office and also to remove any Trustee at any time before the expiration of his period of office by notice in writing to him, provided that the Association shall be bound to fill up any vacancy in the office of Trustee in the event of all the other Trustees for the time being signing a request to it to do so. The Association shall also have the power to appoint the Chairman of the Trustees and if it fails to appoint a Chairman when required by the Trustees so to do the Trustees shall themselves appoint the Chairman.

In the event of the Association being wound up for the purpose of reconstruction the new Association formed on such reconstruction shall be deemed to be substituted for the Association hereunder but in the event of the Association being wound up for any other reason or for any other reason being unable or refusing to exercise its rights and duties as prescribed by all or any of these rules (except as regards arbitration in disputes) a general meeting of the Employers who contribute to the Fund shall be called by the Trustees and such meeting shall nominate some body to replace the Association in connection with the Fund. Such meeting shall be held in London and 3 months' notice of it shall be given. Two employers present in person or by proxy shall be a quorum for the meeting.

The Trustees shall have the exclusive administration and control of the Fund and the income arising therefrom, subject to the rules of the Fund for the time being in force, but, for convenience of administration, they shall be at liberty by an instrument in writing signed by all the Trustees to delegate to a committee in London such of their duties as it may be found necessary to perform in London provided that any such Committee shall have no control over the Fund but shall act in all respects in accordance with the directions of the Trustees.

All costs, charges and expenses of administering the Fund and of the determination of any question arising under these rules or otherwise in relation to the Fund including all expenses incurred by the Trustees in the discharge of their duties and in attending meetings of the Trustees shall be chargeable thereto and may be properly paid therefrom from time to time by the Trustees.

(To be concluded next week)

DISTRICT ASSOCIATION MEETINGS

A. South Travancore Planters' Association
(INCORPORATED)

Minutes of the Third Quarterly Meeting held at 10 a.m. at the Quilon Club on Saturday, November 7, 1925.

Present

Messrs. E. Hall (*Chairman*), L. A. Lampard, L. J. T. Polgreen, A. H. L. White, T. L. Jackson, R. N. W. Jodrell, W. Gillespie, A. P. D. Lodge, and F. G. Millar (*Hon. Secretary*).

Telegram was read from Mr. E. T. C. Farr regretting inability to attend.

1. Notice calling the Meeting and Agenda was read by the Hon. Secretary.

2. Minutes of the Quarterly Meeting of August 8, 1925, having been published in *The Planters' Chronicle*, were taken as read and confirmed.

3. *Report of Delegates to U.P.A.S.I. Meeting, Bangalore, in August 1925.* Messrs. Millar and Jodrell intimated that, as the Book of Proceedings had been in the hands of the members for some little time, they did not purpose making a special report on the subject; but they would be pleased to answer any questions in regard to the Bangalore Meeting.

Under the heading 'South Indian Branch of the Rubber Grower's Association' the question of the constitution of the new R.G.A. Committee was raised. It was pointed out that it did not appear within the rights of the proposed new R.G.A. Committee to nominate one of their members as a representative of rubber interests on the Executive Committee of the U.P.A.S.I. or within the powers of the Executive of the U.P.A.S.I. to accept such appointment. As the resolution stands it is necessary to form the new Committee; but the appointment of a member to the U.P.A.S.I. Executive should be referred to the Secretary of the U.P.A.S.I. for his opinion and advice.

The delegates explained the present position with regard to R.G.A. representation, and said that the amended scheme with proposed alterations had been referred back to the parent association in London.

No further questions being asked the Chairman proposed a hearty vote of thanks to Messrs. Millar and Jodrell for their services and that the sum of Rs. 780, being their travelling and hotel expenses, be passed for payment. *Carried.*

4. *Subscription of Personal Members to District Associations*—The Hon. Secretary read letter No. 5121 dated October 10, from Secretary, U.P.A.S.I., in regard to the question of having a uniform rate of subscription (Rs. 5) for all personal members of District Associations. The matter was fully discussed and it was proposed by the Chair.

'That the present rate of subscription of personal members of this Association at Rs. 10 per annum remain as at present and the Honorary Secretary be instructed to investigate the question of making Assistants of all subscribing estates Honorary Members of the Association.' *Carried.*

5. *Election of Planters' Trustee on the Cochin Port Trust.*—Letter No. 5175 dated October 12, from Secretary, U. P. A. S. I. The subject was discussed and the following resolution was put forward. Proposed by Mr. W. Gillespie and seconded by Mr. T. L. Jackson that :—

‘This Association agrees that the election of the Planters’ Trustee be left to the members of the U. P. A. S. I. Executive Committee; but put forward Mr. L. A. Lampard’s name as a suitable candidate for election to the Board of Trustees on the Cochin Port Trust.’

6. *Passages to Wives of European Employees, U. P. A. S. I. Labour Department.* Letter DA/1, dated October 23, from Major C. H. Brock, Director, Labour Department.

The Honorary Secretary read the letter relating to this matter.

Proposed by Mr. T. L. Jackson and seconded by Mr. A. H. L. White :—

‘That this Association is in favour of passage money for the wives of Superintendents of the Labour Department being paid from U. P. A. S. I. General Funds.’ *Carried.*

7. *U. P. A. S. I. Sports Club.*—Mr. R. N. W. Jodrell spoke with regard to the advisability of the Association considering the question of joining the Sports Club as a member under Rule 1a. The speaker said that the Club was now well established and was doing good work in arranging football, cricket, tennis and golf tournaments and organizing an annual Planters’ Week at Ootacamund and in his opinion the Club ought to be supported.

Proposed by the Chair that :—

‘This Association joins the U. P. A. S. I. Sports Club under Rule 1a as from April 1, 1926 and that Mr. A. P. D. Lodge be elected as our district sports representative.’ *Carried.*

Correspondence.—Letter No. 3340, dated August 14, 1925 from Manager The Madras, Telephone Co., Ltd., Madras, in regard to estate installations, apparatus, etc. *Recorded.*

Letter Ref. No. T. H. 1817, dated August 27, 1925, from Editor-in-Chief, *The Planters’ Journal and Agriculturist*, Calcutta, asking for copies of S. T. P. A. Minutes for publication. Honorary Secretary was instructed to send copies of Proceedings in return for complimentary copy of journal.

With a vote of thanks to the Chair the meeting terminated.

ERIC HALL,
Chairman,

F. G. MILLAR,
Honorary Secretary.

B. Wynaad Planters' Association
(INCORPORATED)

**Proceedings of an Extraordinary General Meeting held at the Meppadi Club
on Wednesday, November 18, 1925**

Present

Mr. B. M. Behr (*Chairman*), Messrs. T. C. Anderson, J. E. Bisset, W. G. Craig, R. W. M. Hay, H. J. C. Hammond, M. W. Mackay, S. H. Powell, W. G. Reynolds, E. C. Showard and I. W. Finlayson (*Honorary Secretary*).

The notice convening the meeting was read.

1. Resolution to alter the Articles of Association of the Wynaad Planters' Association.

Proposed from the Chair :—

'That to Article 8 of the Articles of Association be added the clauses.

(a) In the event of a member selling an estate or a portion of an estate in respect of which he has been admitted to membership of the Association, if the purchaser of such estate or portion thereof shall apply to the Association for admission to membership, then and in such case the member so selling shall be entitled, as from the date on which the said purchaser applies for admission to membership, either to retire if his whole estate is sold, or if he still retains an estate or portion of an estate to remain a member but with a liability to pay such reduced subscription as may be due in respect of such estate or portion of an estate so retained by him, but he shall be released from liability to pay any subscription in respect of the estate or portion of an estate so sold by him, as from the date on which the purchaser applies for admission to membership.

Provided always that if such purchaser shall not apply for admission to membership of the Association, the member so selling shall continue to be liable to pay subscriptions until after the expiration of six Calendar months' notice in writing of his intention to retire. Such notice may be given at any time to the Secretary.

(b) In the event of the death of a member his legal representatives shall be entitled to give three Calendar months' notice at any time in writing to the Secretary terminating their liability to pay all further subscription to the Association after the expiration of the said notice.

Any member other than a personal member desirous of retiring as at March 31, 1924, shall give notice in writing of his intention to the Secretary not later than March 31, 1923. After March 31, 1923, any member desirous of retiring shall give one year's notice in manner aforesaid, such notice to expire only at the end of a current financial year of the Association.'

This resolution was passed unanimously.

B. M. BEHR,
Chairman.

I. W. FINLAYSON,
Honorary Secretary.

U. P. A. S. I. SPORTS CLUB

A 'Veterans' Tennis Cup

A request has been made for the above competition during Planters' Annual Meet.

Quite a number of our senior members come to the meet, and rather than have to be spectators (owing to age), would far prefer to have the opportunity of taking an active part in the meet.

The Club has spare funds for a Cup, kindly given by Mr. J. A. Richardson last August. The Committee would be most grateful to him if he would inaugurate this competition to start next February Meet, 1926.

The Committee would I think prefer that Mr. Richardson makes the conditions of play himself regarding :—

1. The Cup—'Challenge' or 'Smaller Cup' to be kept by winner each year.
2. Age limit—and
3. The Committee would request that the Competition be open to members of the Sports Club only.

Should this not catch the eye of Mr. Richardson, a copy is being sent to him.

Planters' Week, February 1926

ADVANCE PROGRAMME

Special Notes

(Continued from page 850, issue of November 14, 1925)

(1) EVENING EVENT —

Saturday, February 20, 1926

There will be a concert followed by dance at the Assembly Rooms at 5.30 p.m.

(2) CRICKET.—

Wednesday, February 24 to Sunday, February, 28

Wednesday's match will be between picked up 'A' and 'B' Planters' Sides ; in order that the form of as many men as possible may be gauged prior to the selection of the team to meet the M.C.C.

Thursday's match will be against Wellington (Gymkhana or Garrison) ; and the U.P.A.S.I. will be represented by as strong a team as possible, including the players whose form the Selection Committee wish to see more of.

Friday and Saturday are fixed for the match against the M.C.C. The highest U.P.A.S.I. S.C. score wins the 'Langley' bat.

Sunday's match will be against an Indian Team ; and the U.P.A.S.I. side will be as strong as possible, and include men who have had least cricket during the week.

(3) PRIZES.—

Their Excellencies the Governor and the Viscountess Goschen are as usual being asked to present the first two prizes for the FANCY DRESS BALL. Capt. Windle is kindly presenting the second two.

Mr. J. Stuart Hawkins is kindly presenting prizes for the best ' Planter ' Boy and Girl, and Mr. and Mrs. J. B. Adkins are kindly presenting prizes for the best ' Guest ' Boy and Girl, at the CHILDREN'S FANCY DRESS.

Mr. Langley is again kindly presenting a bat to the player who makes the highest individual score in the CRICKET MATCH vs. M.C.C.

G. W. FULCHER,

November 21, 1925.

Honorary Secretary.

THE SPOTTING OF CREPE RUBBER

BY

W. BROWN, M.A., D.Sc.

(Continued from page 851, issue of November 14)

The foregoing results refer to spotting by the *Fusarium*. As regards the yellow staining *Penicillium* it is known that a high water content in the rubber accelerates and intensifies spotting. On the other hand the favouring effect of an ammonium salt is not so sharply defined as in the case of the *Fusarium*. The yellow colour is produced by the *Penicillium* on practically all kinds of media, and the only condition necessary for spotting appears to be a sufficiency of water in the rubber material. Under the most favourable conditions, spotting takes place much more slowly with the *Penicillium* than with the *Fusarium* and altogether the former is a much less suitable fungus for experimental purposes.

Before proceeding to describe experiments dealing with the prevention of spotting in material prepared as described above, a number of observations of interest from the scientific point of view will be given here.

It has been pointed out that in order to produce intense spotting all that is necessary before inoculation is to add a trace of an ammonium salt to the hydrated rubber. Now for fungal growth a complete nutrient is necessary. The question therefore arises as to where this comes from. The crepe is known to be well washed immediately after coagulation, and in the course of preparing the dried material for the present experiments it

is washed in a considerable number of changes of water. Nevertheless it was found in a series of germination tests that the *last* washings from the strips of rubber had a distinct stimulating effect on the germination of the fungal spores. It must be remembered that fungi will respond to exceedingly minute traces of nutrient substances, and it would require very prolonged washing to render crepe rubber completely nutrient-free. There may not be enough food material in washed crepe to produce growth visible to the naked eye (i. e. mould) but granted that other conditions are suitable, there is in crepe rubber sufficient food to enable fungal spores to germinate and give rise to spotting.

Considerable attention was directed to the question as to why an ammonium salt favours spotting by the fungus whereas an equivalent (or any other) concentration of potassium nitrate is quite useless for this purpose. Potassium nitrate is an equally good source of nitrogen for the fungus as an ammonium salt from the point of view of mere growth, so that the explanation does not lie in that direction. With an ammonium salt as source of nitrogen, the tendency of fungal growth is to produce an acid reaction by utilization of the ammonia and consequent liberation of the acid radical, whereas in the case of potassium nitrate the reaction tends towards alkalinity on account of absorption of the nitrate radical and liberation of potash. Tests did show in fact that whenever strong spotting occurred, the discoloured areas gave a definite though slight acid reaction to litmus. These considerations suggested that the acidic reaction of the rubber was the factor which really controlled spotting. Attempts were therefore made to see if the ammonium salt could be replaced by an appropriate concentration of acid. The swollen rubber was soaked in a range of concentrations of malic and sulphuric acids and of the various acid phosphates and its susceptibility to spotting tested. These attempts all resulted in failure, i.e. only slight and occasional spotting took place. Nor was it possible by using acidified potassium nitrate to replace the ammonium salt in that way. It appears therefore that though a slight acid reaction may favour the development of spotting the presence of the ammonium radical is necessary of rapid spotting is to take place. It is an open question whether in the slower natural spotting a trace of ammonium salt is necessary, and if so whether it is present as such or is split off from the rubber protein through the agency of the fungus.

The writer's attention was drawn by Dr. Stevens to the fact that spotted crepe is deficient in fatty acids and the suggestion was made that these perhaps played some part in the spotting process. Attempts were made to increase the spotting capacity of rubber by placing it for some time in an emulsion of oleic or stearic acid, but no obvious effect on the incidence of spotting was seen. At the same time it must be confessed that it was not at all certain that the rubber took up any of the fatty acids under the treatment mentioned, so that the experiment had little significance. On the other hand it was found that on extracting crepe rubber with acetone its spotting tendencies were definitely reduced. The following experiment will serve to illustrate this point. Twenty-four strips were cut from the same sheet and soaked in water at 50° for 6 days. Sixteen of these were placed overnight in acetone in the cold, then washed in water for several days to remove the acetone.

(To be concluded next week)

COMMERCIAL AND METEOROLOGICAL

I. The Rupee Exchange for the week ending November 21st, 1925

Bank Selling Demand Draft on London

16th	17th	18th	19th	20th	21st
18 5/32d.	18 5/32d.	18 5/32d.	18 5/32d.	18 5/32d.	18 5/32d.

II. Summary of latest Market Reports and Prices to hand :-

(a) Some of the higher London Prices—

Best prices realized on the London Market			Average prices obtained for tea			
Mark	Pkgs.	Price	District	Week ending October 31, 1925	January 1 to October 31, 1925	January 1 to October 31, 1924
		s. d.		s. d.	s. d.	s. d.
(1) TEA (WEEK ENDING OCTOBER 31, 1925)			N. India.	1 7·10	1 5·19	1 7·22
			S. India	**1 6·74	††1 5·32	††1 6·58
(a) <i>Anamallais</i> —			Ceylon...	1 11·10	1 7·76	1 8·35
Karakundru ...	46	1 8	Java ...	1 1·49	1 0·69	1 3·06
Thaymudi ...	312	1 7½	Sumatra.	1 4·68	1 4·21	1 5·40
High Forest ...	91	1 7½	Nyassa-land.	1 0·39	1 0·91	1 4·43
Kallyar ...	109	1 7	Total	*1 7·97	†1 5·64	†1 7·19
(b) <i>Central Travancore</i>						
Maimalai ...	22	1 8½				
Peermade ...	143	1 6½				
Thungamallay ...	87	1 6½				
Twyford and Ashley.	90	1 6				
(c) <i>Kanen Devans</i> —						
Yellapatti ...	180	1 8½				
Guderal ...	130	1 8½				
Perriavurrai ...	224	1 8½				
Sevenmally ...	170	1 8				
(d) <i>Nilgiris</i> —						
Ibex Lodge ...	48	2 0½				
Prospect ...	143	1 10½				
(e) <i>Nilgiri-Wynaad</i> —						
Daverashola ...	334	1 7½				
(f) <i>Wynaad</i> —						
Erramaculla ...	119	1 2½				

(b) SPECIAL COFFEE CABLE

LONDON, NOVEMBER 25, 1925

'A' COFFEE

145 s. PER CWT.

NOMINAL QUOTATION

** Based on 3,530 packages.

†† " " 159,144 "

‡‡ " " 117,958 "

* Based on 75,480 packages.

† " " 2,662,589 "

‡ " " 2,472,703 "

(b) *Precis of reports on London Markets received on November 23 and covering the week ending Wednesday, November 4 :-*

(1) *Tea.*—The Market underwent a still further advance during the week under review, and the strongest features were medium descriptions between 1/3d. and 1/6d. per pound which increased in value by about 1d. per pound. Common kinds fetched ½d. to ¾d. per pound more than they did in the previous week.

(2) *Rubber.*—Spot price remained just below 4s. during the week under review. At the end of September the American Manufacturers and dealers had only 36,000 tons in hand, and at the same time the London stocks continued to decrease. They fell for instance by 201 tons during the week under review, and on the 4th were only 4932 tons.

(3) *Coffee.*—The 373 bags of South Indian Coffee offered at the auctions during the week under review remained unsold. Many buyers have still on their hands the Coffee which they purchased last season on c.f.i. terms; and this fact, in conjunction with the high prices demanded for Brazilians, tends to restrict trading at present to hand to mouth requirements; though it is possible that the shipment of the new crops will revive the continental demand. Severe drought is likely to have a prejudicial effect on the Kenyan and East African crops, but it is possible that the increased acreage coming into bearing will more compensate for this decrease.

III. Weekly Rainfall Statement

From April 1, 1925, up to and including Saturday, November 21, 1925

Stations are arranged in order approximately south to north and those not in planting districts are shown in small capitals.

Stations	W.	P.	Total	Stations	W.	P.	Total
1. Kalthuritty.	0·72	87·40	88·12	19. Coonoor ...	2·02	51·48	53·50
2. *Tenmalai.	1·09	94·21	95·30	20. Kotagiri ...	1·04	45·27	46·31
3. Mundakayam.	0·02	147·33	147·35	21. Ootacamund	0·65	41·79	42·44
4. *Peermade.	0·16	165·75	165·91	22. Yercaud ...	1·29	39·32	40·61
5. Twyford ...	N.R.	N.R.	N.R.	23. Devala ...	N.R.	127·87	N.R.
6. V'periyar ...	N.R.	75·64	N.R.	24. Gudalur ...	Nil	71·51	71·51
7. Kalaar ...	0·33	206·16	206·49	25. CALICUT ...	0·37	127·74	128·11
8. Chittuvurrai	1·92	46·95	48·87	26. Kuttiyadi ...	0·02	171·43	171·45
9. BODI'KANUR	0·75	17·89	18·64	27. Vayittiri ...	0·04	156·66	156·70
10. COCHIN ...	3·53	103·12	106·65	28. Manantoddi.	0·01	108·14	108·15
11. *Mooply ...	0·09	108·57	108·66	29. Billigiris ...	1·01	55·81	56·82
12. MooplyValley	0·11	119·94	120·05	30. *Sidapur ...	0·06	70·69	70·75
13. Pachaimalai	Nil	119·77	119·77	31. Pollibetta ...	0·40	80·68	81·08
14. Mudis ...	N.R.	194·46	N.R.	32. Somwarpett	0·31	80·31	80·62
15. POLLACHIE.	2·49	23·41	25·90	33. Ballupete ...	0·41	71·38	71·79
16. Manjeri ...	Nil	123·28	123·28	34. MANGALORE.	0·57	137·12	137·69
17. Nilambur ...	0·33	98·55	98·88	35. MADRAS ...	1·99	42·35	44·34
18. Naduvattam	0·11	80·18	80·29				

W = During the week.

P = Previously.

N.R. = No return,

* = U.P.A.S.I. Ex. Station.

The Planters' Chronicle

Recognized as the Official Organ of the U. P. A. S. I. (Incorporated)

Managing Editor's Postal Address : POST BOX 155, MADRAS

Do. do. Registered Telegraphic Address : UPASI, Madras

VOL. XX, NO. 49] SAT., DECEMBER 5, 1925 [PRICE, AS. 8

CONTENTS

	PAGE		PAGE
Editorial Notes ...	887	U.P.A.S.I. Sports Club—	
Eothen's Monthly Notes on		List of Members, 1925-6 ...	899
Rubber and Tea ...	888	Letters to the Editor—	
District Association Meeting—		Bone shakers ...	900
Mysore ...	890	A Reminiscence ...	900
		Commercial and Meteorolo- gical ...	901

EDITORIAL NOTES

We notice that His Excellency Sir Hugh Clifford, G. C. M. G., the Governor-Designate of Ceylon, with Lady Clifford and *The Bibby Line* Suite, travelled 'Bibby' when going out last month to assume his new charge. The party travelled the whole way from England by sea; and we congratulate this increasingly popular company, whose sailings appear on page xi, at this signal mark of the high estimation in which it is held.

The Tea and Coffee Trade Journal states that at present the annual production of tea in China, British India, Ceylon, Dutch East Indies, Japan, and Formosa is respectively about 880, 375, 182, 98, 78 and 24 millions of pounds; which with an output of 79 millions from 'other countries' gives a total world production of 1716 million pounds. The Chinese however only export considerably less than one-tenth of the total amount they produce. The same Paper states that the *per capita* consumption in The United Kingdom, New Zealand, Australia, Canada, The Netherlands, South Africa and The United States is respectively 8·8, 6·3, 6·1, 4·4, 3·1, 1·3, and 0·86 lbs. It is interesting to note for comparison with the last cited figure that The United States *per capita* consumption in 1865 was only 0·49 lbs., but had increased to 1·56 lbs. by 1897; since when it has again decreased.

MONTHLY MARKET NOTES

BY

'EOTHEN'

TEA

The tea market is on the whole somewhat stronger and with a better tone than it was a month ago. This week's Indian sales have gone very well, but Ceylon teas not being quite up to their usual quality met with a slight setback. One point of interest to which attention has been consistently drawn in these notes of the past few months is the re-entry of Russia into the tea market, and incidentally into other world markets. The Board of Trade figures just issued show a remarkable increase in the re-exports of goods from this country to Russia. In August the quantity of tea shipped from London to Russia was 231,805 lbs. In September it was 855,291 lbs. and in October the figure of 1,770,615 lbs. was reached. Glancing at the returns for several other commodities one is forced to the conclusion that Russia is waking up again and becoming a factor in the world's markets. This augurs well for the future of tea; for, as Russia has been such a big buyer in the past, there is no reason why she should not buy equally heavily in the future.

The statistical position of tea appears to be strengthening and the October Northern Indian crop is given at 9 million lbs. less than for the same month last year. Moreover, the season is likely to close early in the majority of districts except Southern Cachar and Western Dooars where the weather is seasonable.

Duty payment figures for the period January to October 31, 1925, were 270 million lbs. comparing with 268 million lbs. for the corresponding period in 1924.

London stocks as at October 31, stand at 162,680,000 lbs. The excess of deliveries over imports (London only) for the period June 1 to October 31, 1925, is 15,000,000 lbs. Imports and deliveries in October itself practically balanced.

The following are the averages up to November 6, but not including this week's sales:—

	Week ending Nov. 6, 1925	Same week, 1924	Jan. 1 to date, 1925	Jan. 1 to date, 1924
Northern India ...	1/6·62d.	1/10·3d.	1/5·23d.	1/7·31d.
Southern India ...	1/6·63d.	1/8·9d.	1/5·36d.	1/6·59d.
Ceylon ...	1/10·94d.	1/11·3d.	1/7·81d.	1/8·39d.
Java ...	11·87d.	1/6·3d.	1/0·68d.	1/3·09d.

At yesterday's sale of Indian teas a strong tone prevailed and the close was firm. Above 1/6d. per lb. prices were fully maintained with a dearer tendency in the best liquoring and tippy parcels.

The tea share market has received considerable support during the past month and discriminating investors and speculators, who believe in buying shares when they are cheap and selling them when they are dear, are devoting unostentatious but regular attention to the tea share market. Some of the Ceylon tea-cum-rubber rupee companies' shares appear to be now standing at reasonably low levels and certainly their prices compare favourably with most of the well-known sterling companies' shares.

RUBBER

The rubber market became a little sensitive towards the end of October as buyers were playing a waiting game, hoping that the Colonial Office

would announce an additional increase in the exportable percentage of standard production of say, 15 per cent instead of the usual 10 per cent. There was no tampering with the Stevenson Scheme, however, and consequently only the normal addition of 10 per cent making 85 per cent of standard production was sanctioned for the quarter beginning November 1. There was, on the whole, but little agitation on the part of British manufacturers when only the 10 per cent addition was announced, but the Colonial Office decision curiously enough coincided with a somewhat acrimonious speech by Mr. Hoover, the United States Secretary for Commerce. Mr. Hoover, admittedly in the course of some general remarks, declared the price of rubber to be exorbitant and threatened retaliation by restricting credits to commodity-controlling nations, thus precipitating a trade war. As on a previous occasion he also suggested the revision of the Sherman Anti-Trust Law, thus allowing United States producers to combine or to amalgamate with consumers so that one buyer could meet one seller. This reminds one of former remarks of Mr. Hoover's regarding the deplorable effects of 'restraints on international trade'. America, however, in view of her high protective tariffs should be the last country to talk unctuously about restraints on international trade. Moreover, the enormous sum which we pay yearly to America for a War Debt contracted on behalf of the Allies generally causes more ill-feeling than any 'restraints on international trade' could possibly do. The British public is beginning to realize that the high price of rubber is helping us to pay the American debt and Mr. Hoover's remarks have been most unsympathetically received.

The extent to which America is working on short stocks has been again shown by the strength which the market displayed owing to a rumour that further rubber-laden steamers would be delayed owing to the recent severe Atlantic gales. The outlook for rubber companies remains excellent as they have been able to sell forward at most remunerative prices up to and including the end of 1927. Although the market is on the whole still bullish, there are many who think that there will be a reaction in the price of rubber next year, if not before. What might be termed 'professional bulls' are continually stating that rubber companies cannot produce more than 85 per cent of standard production owing to shortage of labour. This view is not held by the rubber correspondent of the leading financial newspaper, just returned from the East, who holds that the majority of companies will be able to produce 95 per cent when the time comes. There have also been concessions to small-holders in the Malay States and it is understood that Ceylon small-holders will also be assisted by a higher scale of assessment.

The market appears to have quite recovered from the scare caused by the Colombo cable in October which outlined an amplification of the Stevenson Scheme to come into force in February next year. There is a strong current of opinion that February 1, 1926, will either see the end of restriction or else the rendering of the ordinances more elastic. A less rigid scheme would ensure quicker releases when necessary. Nothing but the abolition of restriction, however, will satisfy the manufacturers here and in America.

London rubber stocks show little appreciable change from last month and now stand at 4,906 tons against 36,058 tons a year ago and 60,405 tons in 1923.

LONDON,
November 12, 1925.

(To be concluded next week).

THE MYSORE PLANTERS' ASSOCIATION

(INCORPORATED)

The Proceedings of a Quarterly General Meeting of the Mysore Planters' Association (Incorporated) held at the Kadur Club, Chikmagalur, on Monday, October 26, 1925.

Present

Messrs. E. W. Fowke (*Chairman*), G. W. Breithaupt, F. Cannon, C. Courpalais, Col. W. L. Crawford, D.S.O., Messrs. S. H. Dennis, H. H. English, C. H. Godfrey, Major A. L. Hill, O.B.E., M.C., Messrs. C. Howison, Percy Hunt, St. John Hunt, H. Kerr, W. H. F. Lincoln, L. Newcome, R. O. Oliver, E. L. Poyser, W. H. Reed, K. T. Sheshaiya, B.A., LL.B., S. J. Wilson and M. A. deWeck (*Secretary*).

Visitor

Mr. A. Breithaupt.

The notice calling the meeting was read.

Before proceeding with the business of the Meeting the Chairman said: 'Gentlemen, it is my sad duty to refer to the great loss we have sustained by the sudden death of Mr. Andrew Harman; though not a member of this Association he was for a few years a member of the North Mysore Association. Mr. Harman was a most popular member of our community and he will be greatly missed by all who knew him. I will ask you to join with me in expressing to his relations our great sorrow and sincere sympathy with them in their sad bereavement.' This resolution was passed all standing.

The Minutes of the last meeting were taken as read and confirmed.

The Executive Committee's Report for period from August 1, 1925, to October 15, 1925.—After the Secretary had answered one or two questions the following Report was adopted:—

EXECUTIVE COMMITTEE'S REPORT

August 1, 1925 to October 15, 1925

Meetings.—An Extraordinary General Meeting was held on August 13, 1925.

Accounts.—Certified copies of the Balance Sheets for 1923-24 and 1924-25 have been filed, according to the rules of the Mysore Companies Regulation of 1917, with the Registrar of Joint Stock Companies in Mysore.

Coffee Cess.—As resolved at the last meeting the total amount Rs. 2,155-8-0, due by this Association to the U.P.A.S.I. on account of Coffee Cess for 1924-25 was paid immediately after the last meeting. Amounts totalling Rs. 474-14-0 are still due by members to this Association.

Obstruction of Public Roads.—The attention of the Deputy Commissioners, Hassan and Katur Districts, was invited to the obstruction of public roads by the parking of carts thereon. Replies were received from both Deputy Commissioners to the effect that the necessary steps were being taken in this matter.

Chikmagalur Cemetery.—As resolved at the last meeting the attention of the Reverend the Chaplain of Mercara and Mysore, was invited to the disrepair, etc., of this cemetery. A reply has been received to the effect that the matter will be enquired into.

St. George's Homes.—As instructed the Secretary sent an appeal for subscriptions to all members. This resulted in a further sum of Rs. 35.

South Indian Planters' Benevolent Fund.—The grant of Rs. 50 to a planter's widow, which was recommended by the Executive Committee of this Association, was sanctioned by the Committee of this Fund. A letter of thanks to the Association was received from the recipient of the grant.

Mysore Companies Regulation of 1917.—Notice was given to the Registrar of Joint Stock Companies in Mysore by the Bababudin Association that it had ceased to exist and requesting to be struck off the register. Accordingly the Registrar posted notice in the *Mysore Gazette* that, unless cause is shown to the contrary within three months of the date of notice, the name of the Association will be struck off the register and the company will be dissolved.

Monthly Notes.—Notes for September and October have not been sent to *The Planters' Chronicle* by the Secretary.

Date fixed for Next Meeting.—Notice was sent to all members of the change of date of the meeting originally fixed for September 29. This was due to the fact that the Book of Proceedings of the U.P.A.S.I. Annual General Meeting would not be in print before the middle of October.

Defaulter.—The conduct of the case against the defaulter has been taken out of the hands of the vakil, to whom the Association originally entrusted the matter, and has been handed over to Mr. K. T. Sheshaiya, B.A., LL.B., Advocate. The defaulter has agreed to have his case adjudicated by the Executive Committee and to abide by its decision. Accordingly a meeting of the Executive Committee has been called for October 26.

Labour Committee.—It having been brought to the notice of the Association that no 'Labour Committee' had been elected by this Association, as is necessary according to the U.P.A.S.I. Labour Rules, the members of the Executive Committee have agreed to act as the local Labour Committee.

(Sd.) E. W. FOWKE (*Chairman*).
 " W. L. CRAWFORD.
 " C. H. GODFREY.
 " E. L. POYSER.
 " PERCY HUNT.

Election of New Members.—The following resolution was proposed from the Chair: 'That this matter be referred back to the Executive Committee for them to formulate a rule to cover the question of the minimum acreage which qualifies for membership and that, after same has been decided, the names of these applicants for membership will come up for election.' *Carried.*

Report of Member, Legislative Council.—Col. Crawford said that he had no report to make. The only matter of interest to the Association was the Coffee Cess Bill. Permission to introduce other Bills with reference to Village Panchayats, Taluq Boards and District Boards had been asked and these had been referred to Select Committees. There was, however, no need for him to take up the time of the Meeting as those interested in these matters would have already seen them reported in full in the public press.

A vote of thanks to Col. Crawford for so ably representing the Association was passed.

Report of Member, Representative Assembly.—Mr. St. John Hunt presented the following report:—

MR. CHAIRMAN AND GENTLEMEN,

I attended the Dassera Session of the Mysore Representative Assembly which opened on September 29. This is the fourth meeting of the Assembly since it was re-constituted. The proceedings were opened with a very interesting and instructive address by the Dewan Sir H. A. Banerji, a copy of which is laid on the table. We had no special representations to make. Concerning improvement in the Malnad, which is of importance to us, I read what the Déwan in his address had to say under this heading—'In October last year, a comprehensive Government Order was issued reviewing the work under the scheme for the past several years and indicating the lines of further advance. Provision was made for a larger number of dispensaries and hospitals and for female medical aid in the Malnad districts. The survey has been commenced with a view to collect data for the improvement of inter-taluk and inter-village communications in the Malnad and to draw up a programme of development for a period of 3 years. A general economic survey of the tract was conducted and as already stated by me, Government have now appointed a representative committee of officials and non-officials with the Second Member of Council as President, to consider the report of the Special Officer who conducted this survey. For the improvement of education in the Malnad, a high school was sanctioned in Tirthahalli and a considerable amount of activity was shown by Districts Boards in providing drinking water wells and village roads, in the three Malnad districts of Shimoga, Hassan and Kadur. As against the Budget allotment of Rs. 1,03,000 for Malnad improvement, a sum of only Rs. 52,000 was spent in 1924-25. This low expenditure is due to the fact that new dispensaries for extending female medical aid in the Malnad could not be opened during the year for want of lady medical officers. An enhanced grant of Rs. 1,20,000 has been provided in the Budget of the current year. The question of starting a Land Mortgage Bank as an experimental measure is also under consideration in connection with the report of the Special Economic Survey Officer.'

It will be very interesting to hear the report of the Special Officer who conducted 'a general economic survey of the tract' and I hope improve-

ment of village sanitation, eradication of lantana, which is practically growing at the doors of villages, and attention to water supply and communications will not be lost sight of, as also medical aid to outlying villages many of which are becoming extinct.

I extract the following from one of the interpellations in regard to damaged bridges as some of them are of interest to us. The estimated amount for making damages good on Kadamaney Bridge is Rs. 12,000. Kemphole Bridge Rs. 12,300 and Aglatti Bridge Rs. 8,086. We are told that the damaged bridges in the Kadur and Shimoga Districts have been reconstructed, those in the Hassan District are in process and will be completed during the official year. I hope the Aglatti Bridge will soon be restored, as it is a very important one. I have nothing further to add.

A vote of thanks to Mr. St. John Hunt for representing the Association was passed.

Report of Delegates to U.P.A.S.I. Annual General Meeting.—Mr. Fowke read their report as follows:—

GENTLEMEN,

Mr. Godfrey and I as your representatives attended the meeting at Bangalore on August 17, 18, 19 and 20. We were asked to bring up the following subjects:—

1. *Coffee Cess.*—I proposed and Mr. Simmons seconded 'that in view of the determination of the Mysore Government to establish and carry on an Experimental Farm for Coffee and Minor Planting Products the two anna cess be continued.' This resolution was carried unanimously.

2. *Articles of Association.*—I will read an extract from the Proceedings to show what happened regarding this. 'Q. With reference to resolution of which notice was given by the Mysore Association it is possible that a misunderstanding has occurred as to what was meant by Departmental Representatives and my Association has instructed me to ask you in open meeting the exact purport of Article No. 21 (4) regarding Departmental Representatives? A. Last year when at the Annual General Meeting the Anamallais Scheme of working the Labour Department was being discussed the scheme was referred to a Special Committee, which made a report. That report was passed and adopted by the Annual General Meeting and a second resolution was carried that the necessary amendment of the Articles of Association should be made in order to give effect to the recommendations made under the scheme. The last recommendation of the Majority Report of the Special Committee which was accepted by the Annual General Meeting was that steps be taken to provide for Departmental Representation on the Executive Committee. The Articles were accordingly amended, firstly by No. 13 (e) which includes among the duties of the General Committee of the U. P. A. S. I. that of preparing schemes for the inauguration of Departments of the Association in furtherance of its objects and the making and altering of rules for the representation on the Executive Committee of the U. P. A. S. I. of such Departments. Then again in Article No. 21 (4) it is provided that the Executive Committee shall contain,—such representatives and members in waiting of recognized Departments as may from time to time be sanctioned by the General Committee provided always that a Departmental representative shall not be entitled to vote at any meeting of the Executive Committee except on a question relating to the department he represents.—The idea

was that in the same way as it has now been decided to work the Labour Department through Special Committees so possibly in the future it may be found that the Scientific Department which is growing largely had better be worked by a separate Committee and that Committee in the same way as the Labour Department has done may ask for representation on the Executive Committee. Last year there was a suggestion that the South Indian Branch of the Rubber Growers' Association should become a recognized branch of the U. P. A. S. I. and be given a representative.'

3. That Mr. Newcome was duly elected on the General Committee as member for Coffee and Mr. Lake as member-in-waiting.

4. We supported the Shevaroy Association on the question of Railway Demurrage. The resolution was as follows:—'That this Association approach the South Indian Railway Administration through the Railway Board and ask for the support of the Chamber of Commerce, Madras, with a view to obtaining an extension of seven days Free Wharfage (instead of 24 hours as at present) on Goods consigned to Planters at the following stations—Salem, Kadiampatti and Bommidi.' This resolution was passed.

5. In regard to the Article in the Indian Scientific Agriculturist the following resolution was passed, 'That an unqualified withdrawal of the passage No. 30 contained in No. 5 of vol. 6 of the *Indian Scientific Agriculturist* be called for from the Editor and Publisher of the said Journal and should they refuse the matter be referred to the Solicitors of this Association.'

These were the only subjects we were instructed to bring before the meeting. I beg to thank you on behalf of my fellow-delegate and myself for the honour you did us in electing us to represent you at the General Meeting.

After the report had been read the following resolutions, arising therefrom, were put to the Meeting and carried.

Proposed by Mr. Poyser, seconded by Mr. Newcome, 'That this Meeting considers that the official photo taken at the Annual General Meeting of the Upasi shall contain only certain officials, invited visitors and delegates to the Upasi, as was formerly the case.'

Proposed by Mr. Poyser, seconded by Mr. Godfrey, 'That with reference to Mr. Waddington's letter of October 10, this Association sees no reason for altering the present rate of subscription paid by Personal Members of this Association.'

A hearty vote of thanks to Messrs. Fowke and Godfrey for their able representation was recorded.

Report of Members on Control Committees of the Labour Department. Mysore Division.—The following report was read:—

MR. CHAIRMAN, GENTLEMEN,

I attended the meeting of the Mysore Control Committee held in Mysore on May 6, 1925. The subjects brought up for consideration were as follows:—

Lawyer.—The Superintendent pointed out that the present lawyer employed as cases arose was unsatisfactory as he had a big practice in

Mysore and so did not give enough time to the Labour Department work. He suggested that Mr. D. Rama Iyer should be taken on as a whole time man and should receive Rs. 50 plus T. A. This was agreed to by the meeting, provided the Director concurred after going into further detail, but it was thought advisable to give him a year's trial. Since the meeting the Director writes to say that he does not consider it satisfactory. This will be brought up at the next meeting.

Bungalow Site.—A piece of land has been bought from the City Improvement Trust Board, Mysore, for Rs. 5,000 and a wall has been built round the land at a cost of Rs. 2,100, total cost Rs. 7,100. It was considered by the majority that the building of a bungalow and office was unnecessary as it was thought that there would be no difficulty in future in renting a bungalow: also it is possible to get a long lease of the present bungalow in which the Superintendent is comfortable. The Director was requested to find out if the City Improvement Trust would take back the land and, if not, to try and get offers. The subject was left open till the next meeting.

Director's Tour.—The Director had just toured the whole of the Mysore Division and I have since received his report which finishes, 'I must admit that on the whole I was not pleased with the work of this Division on the occasion of my inspection. There have been a lot of careless mistakes in the office and it did not appear to me that the Agents had been well-enough looked after. Further I was disappointed to find that the Superintendent had not picked up Canarese as quickly as I had hoped he would. I dare say that most of the troubles that have arisen were due to his inexperience and not due to his neglect as I feel sure that he has been working alright.'

Inter-Estate Disputes.—The Director was requested to circulate to the Control Committee Members the rules regarding absconding coolies as adopted by the Travancore and Kanan Devan Associations so as to enable me to ask you if you wish them to be introduced into Mysore.

Malavalli Sub-Agency.—This has been re-opened.

Maps.—The Director was requested to have made outline maps of Mysore for the convenience of Committee Members and the Superintendent.

General Working in the Office and Agencies.—The Director explained the system of filing letters and keeping registers. In this respect there is little to be desired.

Posting Letters.—It was agreed that letters should be posted daily instead of twice weekly, as at present, which was considered false economy.

Non-subscribing Estates.—The Superintendent was instructed to return all unserved warrants to non-subscribing estates a week before the hearing.

Recruiting.—I told the meeting that I had very definite instructions from my Association to push forward recruiting. At present no recruiting is done in the Mysore Division and none has been budgeted for. I was told by the Director that there were no funds and little hope of getting more money as the Division supplied less coolies per square mile than any other Division. It appeared to me that if there were funds neither the Director nor the Superintendent had any idea where labour was likely to be recruited.

The Superintendent was instructed to find out where recruiting was possible and to report on this at the next meeting. The Director said it would be a great help if members of District Associations would send in the number of coolies obtained from each taluk in Mysore. If this was done we would know exactly where our Agents are most required.

General Work.—I suggested that I thought that it would be an improvement if the Superintendent spent more time on tour. At present the Superintendent spends only seven days out of Mysore for which he receives T. A. and Batta to the amount of Rs. 300 per mensem. The Director replied that the Superintendent's allowances did not allow for more than seven days also that the clerks in the office were unable to carry on the work if the Superintendent was away for more than seven days. At that time five clerks were employed at a cost per month of Rs. 224, which, I am glad to say, has since been reduced to Rs. 191.

The next Control Committee Meeting is to be held in Mysore on December 8 at 9 a.m.

The following resolutions, arising from the above report, were put to the Meeting and carried.

Proposed by Mr. Dennis, seconded by Mr. Kerr, 'That this Association is in favour of the Superintendent, Mysore Division, spending not less than fourteen days of the month in touring his Division.'

Proposed by Mr. Godfrey, seconded by Major Hill, 'That the property in Mysore City, originally purchased by the Upasi as a building site for the Labour Department, be disposed of advantageously as soon as a favourable lease has been obtained for the present or alternative quarters.'

Proposed by Mr. Dennis, seconded by Mr. Kerr, 'That it is the opinion of this Association that the motor allowance of As. 9/6 per mile permits of a reduction of As. 2/6 per mile.'

Mangalore Division.—Mr. Reed read his report as under :—

MR. CHAIRMAN AND GENTLEMEN,

My instructions from the Association were to try and get the Labour Department to start direct recruiting in South Kanara. I attended a Control Committee Meeting at Mangalore on October 3 at which this question was fully discussed. The meeting came to the conclusion that for the department to start straight away by advancing individual coolies would lead to endless trouble as most of the coolies at present were under advance to various suppliers. We agreed to start cautiously by introducing a scheme of registering coolies who were advanced by estates belonging to the Labour Department. By this means we would know exactly where each coolie was employed and the name of the Recruiter who had advanced him. The Registration Scheme would be tried in two taluks first and, if found successful, the Department would then start Direct Recruiting as it would be in a position to know exactly where every coolie had been employed and if he was in debt to any particular supplier.

The Co-operative Society scheme which had been approved for in one of our previous meetings was brought up again. Mr. Ellis, the Government Labour Commissioner, promised to give this scheme every help and

encouragement. Three estates in Mysore agreed to join and take 25 coolies each; as there would be many difficulties to overcome this was agreed to as a limit with which to start.

I attach some rules drawn up by the Director of the Labour Department and as both schemes are in the experimental stage these rules are open to addition or revision.

Mr. Godfrey then proposed and Major Hill seconded, 'That discussion of the proposals contained in the report of the Member on the Mangalore Control Committee be postponed until next Meeting and that, in the meanwhile, the Secretary circulate to all members copies of the report so as to enable them to make a more considered study of the important proposals contained therein.' This was carried.

A vote of thanks to Messrs. Oliver and Reed for their interesting reports was recorded.

Expenses of Upasi Delegates.—It was decided to make no alteration in the amount, namely, Rs. 150 per delegate, as budgeted for 1925-26.

South Indian Planters' Benevolent Fund.—A letter of thanks from the recipient of a grant, recommended by this Association, was read to the Meeting. The Secretary was instructed to write and thank the Committee of the Fund.

The Bridge on the Saklaspur-Hanbalu Road.—Proposed from the Chair, 'That the Secretary be requested to invite the attention of the Chief Engineer, Mysore Government, to the bridge on the Saklaspur-Hanbalu road, which has been under repair for the last year and a half and is not yet available for traffic, pointing out the great inconvenience thus caused to the travelling public during the monsoon months.' Carried.

Bombay Mails.—Major Hill said that in an interview with the Superintendent of Post Offices, Mysore South Division, he had raised the question of the delay of the mails to and from Bombay. In reply the Superintendent had informed him that mails to and from Bombay to and from Birur, Kadur, and Arsikere were sent *via* Harihar. This (Major Hill continued) was definitely a two-day journey, yet very often the mails took three days to make it. From the times of arrival of the English Mail steamers it appeared that the fault lay with Bombay which failed to despatch mails the same day although the time available appeared ample and previously it managed to do so. Major Hill then proposed and Mr. Godfrey seconded a resolution, 'That the Secretary approach the Postmaster-General, Bombay, through the Superintendent of Post Offices, Mysore South Division, with a view to obtaining an acceleration of the transmission of all mails between Bombay and Birur, Kadur and Arsikere stations on the Madras and Southern Mahratta Railway.' This was carried.

Chikmagalur-Kadur Railway.—The following resolution was put from the Chair, 'That this Association request the Mysore Government to take the necessary steps towards the construction of this railway which will be a great benefit to the inhabitants of the Kadur District and the planting community in general.'

Col. Crawford, opening the discussion, said that he was not and he did not think that anyone was opposed to the idea of this railway. But

before requesting Government to take such a step it was necessary to face the figures relative to cost and maintenance. A study of these revealed the fact that an extra cess of As. 1/6 or 2 would be necessary. He was sure that, when this became clear, people will not be willing to pay such a heavy tax.

Mr. Godfrey, supporting Col. Crawford, laid stress on the fact that if, a comparatively small sum were spent on putting the main roads into first class order, there would be no necessity for a railway as motor lorries and busses would be able to deal with the traffic as satisfactorily, if not more so, than if a railway was constructed at a great cost. Mr. Sheshaiya also said that he did not think people would support the construction of this railway when they learnt that it would necessitate an extra cess of As. 1/6 or 2.

As the feeling of the Meeting was against the proposal the resolution was withdrawn.

Gaming Act.—Proposed by Mr. Fowke and seconded by Mr. de Weck, 'That this Association begs to invite the attention of the Mysore Government to the great increase in gambling amongst estate coolies and also to the fact that the Gaming Act, at present in force, does not cover gaming in open places.' This was carried.

Hassan Goods Shed.—Major Hill brought to the notice of the meeting certain alleged irregularities in the conduct of the present Agent when forwarding manure to estates. The Secretary was instructed to investigate the question of a new agent.

Cochin Port Trust.—The Secretary read to the meeting Mr. Waddington's letter of October 12, on this matter. Mr. Godfrey proposed and Mr. English seconded, 'That the Association's Trustee on the Board of Trustees of the Cochin Port Trust shall be elected by the Active Members of the Executive Committee by postal vote.' *Carried.*

Charmadi Ghaut.—Major Hill, at whose request the matter had been put on the agenda, said that he had received information that the Charmadi Ghaut road is in very bad order. Mr. Reed and Mr. Lincoln, both of whom had recently travelled over this road, confirmed this report. Col. Crawford proposed and Mr. Fowke seconded, 'That this Association requests the Mangalore Curers to send out a deputation to inspect and report upon the present condition of the South Kanara section of the Kotigahar-Charmadi Ghaut Road and make suggestions for its immediate repair. The report and suggestions to be forwarded to the President and Engineer, the South Kanara District Board, for their opinion and necessary action.' *Carried.*

Date of Next Meeting.—It was decided to fix this for January 20, 1926. The Chairman moved a vote of thanks to the President and members of the Kadur Club for their kindness in allowing the meeting to be held in the Club.

With a vote of thanks to the Chair the meeting ended.

M. A. DE WECK,
Secretary.

E. W. FOWKE,
Chairman.

U. P. A. S. I. SPORTS CLUB

A. List of Members who had paid their 1925-6 Subscriptions by November 30, 1925

Anamallais—

The Association
S. R. Armitage.
E. H. Beadnell.
R. C. Bulteel.
J. E. Carless.
C. F. Clarke.
J. H. Dauglisii.
F. J. B. Diaper.
C. French.
G. Gibson.
F. L. Gordon.
E. V. Hammond.
L. N. S. Harris.
O. M. Hetherington.
F. C. Hoskins.
B. L. John.
E. Johnson.
J. H. Ireland Jones.
J. L. Lardner.
G. A. LeMeasurer.
W. H. Martin.
E. G. F. Maule.
C. W. Mayow.
W. Ogilvy.
G. B. Reade.
W. V. Reilly.
T. Ryan.
W. B. Salmond.
F. L. Schwind.
S. Sladden.
D. A. Sladen.
G. Steven.
T. G. Stockwell.
E. A. Stone.
R. M. Sweet.
J. L. H. Williams.

Central Travancore—

E. C. Sylvester.

Coorg—

The Association.
R. Bentley.
W. A. Davies.
H. C. Humphreys.
A. F. Magniac.
A. E. J. Nicolls.
G. R. Pearse.
J. H. Sprott.

G. P. White.
W. R. Wright.

Kanan Devans—

G. W. Cole.
J. Gray.
M. C. Koechlin
E. N. Pinks.
H. A. Ragg.
G. R. Strachan.
J. C. Swayne.
G. E. Waghorne.
J. S. B. Wallace.
H. J. Watson.

Mundakayam—

M. S. Calderwood.
H. B. Macpherson.
G. McPherson.
J. S. P. Symnos.

Mysore—

The Association.
H. Allardice.
M. A. DeWeck
L. Newcome
E. M. Nixon.
R. O. Oliver.
H. Watson.

Nilgiris—

A. K. Weld-Downing.
L. G. Elkington.
L. F. Lake.
R. J. Layard.
J. A. Richardson (L.M.)

Nilgiri-Wynaad—

W. K. Baillie.
J. C. Blackham.
A. Foote.
R. Fowke.
G. W. Fulcher
E. A. Koechlin
D. Mackintosh.
D. T. Merson.

R. M. Morrow.
P. A. Naylor.
J. C. Nicolls.
R. M. Nicolls.
F. C. Scott.
J. B. Trafford.
C. R. W. Walker.
M. Wright.

South Travancore—

E. A. Cowdray.
J. C. G. Glen.
M. W. Hoare.
F. G. Millar.

West Coast—

G. M. Brameld.
W. F. Campbell
M. R. Fetherstonhaugh
R. Lescher
H. C. Leslie.
J. T. Murray.
W. W. Prager.

Wynaad—

The Association.
D. Bate.
G. Bayzand.
E. M. Behr.
B. St. J. Boultonbee.
W. T. Broadhurst.
W. G. Craig.
R. S. Creed.
E. E. Eyre.
I. W. Finlayson.
J. A. Gwynne.
H. J. C. Hammond.
R. M. Hay.
L. C. G. Hayne.
W. S. Heron.
H. W. Hutton.
E. Janzen.
A. L. Lang.
R. A. Leslie.
M. W. Mackay.
A. Peachy.
K. C. Pryor.
W. A. Reynolds.
E. C. Steward.
J. Strachan.
R. P. N. Swayne.

B. Donations

Barwood Estate.
H. F. DeCourcy,

J. S. Nicolls.
J. A. Richardson (For
Cup).

J. J. Murphy (For Cup).

U. P. A. S. I. SPORTS CLUB—(continued.)

D. Life Members

Anamalais—

C. R. T. Congreve.
D. Cooper,
E. Hardy.
E. N. House.
J. A. R. Lloyd.
J. Hatton Robinson.
E. W. Simcock.

Central Travancore—

J. S. Wilkie.

Kanan Devans—

W. J. Dixon.
W. A. Lee.
H. L. Pinches.

Mundakayam—

J. J. Murphy.

Mysore—

C. H. Godfrey.
E. L. Poyser.

Nilgiris—

Sir F. Barber.
J. A. Richardson.
Capt. E. G. Windle.

Nilgiri-Wynaad—

J. B. Adkins.
J. Aird.
H. L. Cuthell.
R. Fowke.

G. W. Fulcher.
J. S. Nicolls.

South Travancore—

E. Lord.

West Coast—

C. E. M. Browne.
W. K. M. Langley.
H. J. Walmesley.

Wynaad—

H. C. Davies
T. P. Gauld.
S. H. Powell.
J. H. B. Sullivan.
N. C. Whitton.

LETTERS TO THE EDITOR

(The 'Planters' Chronicle' is not responsible for the opinion of its correspondents.)

'Bone-shakers'

THE EDITOR,

"PLANTERS' CHRONICLE,"

MADRAS.

SIR,

The running costs of their cars being a matter of interest and argument among motorists all the world over; could you not prevail upon Mr. Newcome to publish in your pages full details of the actual figures upon which his Association has based its opinion that 6 annas per mile is an 'ample and liberal' allowance?

Such publication and its ensuing controversy would not only help you, Mr. Editor, to maintain among your readers the enormous interest in your pages which has lately been aroused by Mr. Newcome's disquisitions upon bones; but might also encourage our Planting Member to take up with the Legislative Council of Madras the (in Mr. Newcome's opinion) disgracefully excessive rate of mileage now allowed by Government to its officials.

Yours, etc.,
'A.C.'

A Reminiscence

SIR,

Would any of your Scottish readers kindly explain the joke in ANTI-NEWCOME'S letter in your last number? We are quite prepared to laugh when we see the point. It may however be beyond the comprehension of the better class even of Scotsmen. It probably had its origin in the docks of Glasgow or among the Marmolade Pots of Dundee.

SOMWARPETT,
December 2, 1925.

Yours, etc.,
L. NEWCOME.

BANGALORE—CENTRAL HOTEL, 'The Best in the Station.'

(Some Editorial Notes; the Leading Article; the conclusions of 'A Provident Fund for Planters', 'The Spotting of Crepe', and 'Eothen's Notes'; and a letter from Mr. L. Newcome on 'The Export of Indigenous Manures' have been unavoidably held over for want of space.—Ed.)

COMMERCIAL AND METEOROLOGICAL

I. The Rupee Exchange for the week ending November 28th, 1925

Bank Selling Demand Draft on London

23rd	24th	25th	26th	27th	28th
18 5/32d.	18 5/32d.	18 5/32d.	18 5/32d.	Holiday	18 5/32d.

II. Summary of latest Market Reports and Prices to hand :—

(a) Some of the higher London Prices—

Best prices realized on the London Market			Average prices obtained for tea			
Mark	Pkgs.	Price	District	Week ending November 7, 1925	January 1 to November 7, 1925	January 1 to November 7, 1924
TEA (WEEK ENDING NOVEMBER 7, 1925)		s. d.		s. d.	s. d.	s. d.
(a) <i>Anamallais</i> —			N. India.	1 6·62	1 5·23	1 7·31
Thaymudi ...	203	1 8	S. India	**1 6·63	††1 5·36	††1 6·59
Karamalai ...	189	1 7½	Ceylon...	1 10·94	1 7·81	1 8·39
Naduarr ...	148	1 7½	Java ...	0 11 87	1 0·68	1 3·09
(b) <i>Central Travancore</i>			Sumatra.	1 4·05	1 4·20	1 5·56
Fairfield ...	83	1 8	Nyassa-			
Glenmary ...	71	1 7½	land.	Nil	1 0·91	1 4·43
Caradigoody ...	100	1 6½	Total	*1 7·26	†1 5·68	†1 7·27
(c) <i>Coorg</i> —						
Glen Lorna ...	122	1 7½				
(d) <i>Kanen Devans</i> —						
Chockanad ...	108	1 9½				
Chundavurrai ...	69	1 9				
Kanniamally ...	66	1 8½				
Yellapatti ...	228	1 8½				
(e) <i>Mundakayam</i> —						
Yendayar ...	32	1 5½				
(f) <i>Nilgiris</i> —						
Nonsuch ...	107	2 1½				
Craigmore ...	103	1 10				
Prospect ...	246	1 9½				
(g) <i>Nilgiri-Wynaad</i> —						
Woodbriar ...	97	1 6½				
Seaforth ...	65	1 5½				
(h) <i>South Travancore</i> —						
Poonmudi ...	40	1 7				
Braemore ...	90	1 4½				
(i) <i>Wynaad</i> —						
Erramaculla ...	120	1 4½				
Chulika ...	67	1 4½				

(b) SPECIAL COFFEE CABLE

LONDON, DECEMBER 2, 1925

'A' COFFEE

140 s. PER CWT.

MARKET QUIET

** Based on 5,317 packages.

†† " " 164,461 "

‡‡ " " 118,596 "

* Based on 64,593 packages.

† " " 2,727,182 "

‡ " " 2,531,320 "

(c) *Precis of reports on London Markets received on November 30 and covering the week ending Wednesday, November 11 :—*

(1) *Tea.*—The Market for teas from 1/3d. upwards remained quite firm; but the price of lower grades showed a decline of about a ½d. per pound.

(2) *Rubber.*—The Market was easier than in the previous week: business in 'spot' being done at 3/10½d. on the 10th. London stocks underwent a further decrease of 26 tons.

(3) *Coffee.*—The supplies offered at the auctions during the week under review were exclusively African. No Indian Coffee was put up for sale. East African 'A' Coffee (the bean of which is only as big as Indian 'C') was fetching from 115s. to 125s. as against the 150s. to 160s. which it could command at the corresponding date in 1924.

III. Weekly Rainfall Statement

From April 1, 1925, up to and including Saturday, November 28, 1925

Stations are arranged in order approximately south to north and those not in planting districts are shown in small capitals.

Stations	W.	P.	Total	Stations	W.	P.	Total
1. Kalthuritty.	Nil	88·12	88·12	19. Coonoor ...	N.R.	53·50	N.R.
2. *Tenmalai.	Nil	95·30	95·30	20. Kotagiri ...	0·03	46·31	46·34
3. Mundakayam.	Nil	147·35	147·35	21. Ootacamund	0·17	42·44	42·61
4. *Peermade.	Nil	165·91	165·91	22. Yercaud ...	0·21	40·61	40·81
5. Twyford ...	N.R.	N.R.	N.R.	23. Devala ...	N.R.	127·87	N.R.
6. V'periyar ...	0·02	76·35	76·37	24. Gudalur ...	Nil	71·51	71·51
7. Kalaar ...	0·07	206·49	206·56	25. CALICUT ...	Nil	128·11	128·11
8. Chittuvurrai	0·20	48·87	49·07	26. Kuttiyadi ...	Nil	171·45	171·45
9. BODI'KANUR	Nil	18·64	18·64	27. Vayittiri ...	Nil	156·70	156·70
10. COCHIN ...	0·03	106·65	106·68	28. Manantoddi.	Nil	108·15	108·15
11. *Mooply ...	Nil	108·66	108·66	29. Billigiris ...	0·06	56·82	56·88
12. Mooply Valley	Nil	120·05	120·05	30. *Sidapur ...	Nil	70·75	70·75
13. Pachaimalai	0·11	119·77	119·88	31. Pollibetta ...	Nil	81·08	81·08
14. Mudis ...	0·75	194·66	195·41	32. Somwarpett	0·10	80·62	80·72
15. POLLACHI.	Nil	25·90	25·90	33. Ballupete ...	Nil	71·79	71·79
16. Manjeri ...	Nil	123·28	123·28	34. MANGALORE.	Nil	137·69	137·69
17. Nilambur ...	N.R.	98·88	N.R.	35. MADRAS ...	3·08	44·34	47·42
18. Naduvattam	Nil	80·29	80·29				

W = During the week.

P = Previously.

N.R. = No return.

* = U.P.A.S.I. Ex. Station.

The Planters' Chronicle

Recognized as the Official Organ of the U. P. A. S. I. (Incorporated)

Managing Editor's Postal Address : POST BOX 155, MADRAS

Do. do. Registered Telegraphic Address : UPASI, Madras

VOL. XX, NO. 50] SAT., DECEMBER 12, 1925 [PRICE, AS. 8

CONTENTS

	PAGE		PAGE
Editorial Notes ...	903	Letters to the Editor—	
I.T.A. Scientific Department		Export of Indigenous	
Journal ...	905	Manures ...	913
'Eothen' on Coffee ...	907	'Richardson' Veterans' Cup	915
District Association Meeting—		U.P.A.S.I. Sports Club ...	915
Wynaad ...	908	Commercial and Meteorolo-	
Central Travancore ...	909	gical ...	917

EDITORIAL NOTES

The average price of rubber for the August-October quarter was 3/7.26d.—the highest since Restriction was introduced in November 1922. The average for the preceding quarter was 3/2.469; and readers who file back numbers of *The Planters' Chronicle* may be glad to enter these two figures in the table which we gave on page 656 of the issue of September 5, and so complete their record of Exportable Percentages and Average Prices since the inauguration of the Restriction Scheme. Though the August-October quarter realized a considerably higher average than the May-July quarter, yet the latter quarter contains the month which has returned the highest average price for 1925. This was July, when the average was 3/11.75d. as against 3/11.38d. for the month before last. Coincident of late with the increases in permissible exports and as a consequence in shipments has been a decline in the London stocks, which in the circumstances is striking testimony to a strengthening demand. As we write comes the news that the Colonial Office have raised the Exportable Percentage for the quarter commencing next February from the prescribed 95 per cent to 100 per cent; thus, so far as Standard Production is concerned, bringing the Restriction Scheme to an end. We doubt however if our Transatlantic Cousins will cry 'For this relief much thanks'. At present, at any rate, they do not seem to realize that half—or rather 85 per cent—of something is better than nothing at all. For our part we sometimes think 'Restriction Scheme' a misnomer, and feel that 'Augmentation Scheme' would have been a better term; for there can be little doubt that, if the Scheme had not materialized, there would have followed a period of Restriction far more drastic than that which was actually experienced: a period of Restriction caused by the enforced abandonment of innumerable Estates. Indeed we do not feel too confident that a modified form of natural, as opposed to artificial, Restriction will not yet be in evidence;

for some authorities predict a rubber famine in 1928 as a consequence of Producers having been unable, owing to the economic pressure of the Manufacturers, to open up new areas in 1921-2.

We are indebted to *The Planters' Journal and Agriculturist* for the following figures which show the acreage of the area under Indian Tea, and the amount of tea produced, in India during the quinquennium 1919-1923:—

		Acres				
		Assam	Bengal	Madras, Travancore, Cochin, etc.	Rest of India	Total
1919	...	412,679	172,747	88,394	19,611	693,431
1920	...	420,155	172,263	91,450	19,489	702,359
1921	...	417,200	177,321	96,026	18,459	709,006
1922	...	412,137	180,258	92,857	22,947	708,199
1923	...	411,807	180,778	94,919	22,785	910,998

Production in Pounds

1919	...	239,132,873	99,511,408	34,143,759	4,267,563	377,055,634
1920	...	234,314,061	71,696,567	35,654,878	3,539,948	345,205,451
1921	...	181,502,774	58,753,687	31,422,598	2,584,712	274,263,776
1922	...	199,965,318	71,720,740	36,547,753	3,405,125	311,638,962
1923	...	237,600,451	87,950,573	45,678,971	4,125,624	375,355,392

Mr. K.R. Narayana Aiyar, B.A., of the Travancore Research Laboratory details in the Government Gazette of the 10th ulto. an experiment which he recently made with a view to asserting the feasibility or otherwise of converting waste materials

*Synthetic
Manure*

such as dry leaves, grasses, straw and other refuse into synthetic farm yard manure without the intervention of life stock. 168 lbs. of dry mango leaves were collected from his office garden and stacked in a pit 9 × 5 × 1½ feet in layers of about 3 inches thick. As each layer was spread, lime (Calcium Carbonate) was broadcasted, and water sprinkled as evenly as possible with a watering can. The total quantities of water and lime used in this way were respectively 40 gallons and 8·4 lbs. When the pit was thus filled, 6·3 lbs. of Ammonium Sulphate were dissolved in 10 gallons of water and sprinkled evenly over the surface of the material, which was subsequently thoroughly moistened by the further sprinkling of 20 gallons of water. The pit was protected from sun and rain by a thatched shed and watering continued at regular intervals to maintain the moist conditions necessary for active fermentation. In 9 days the material began to sink, in 14 days to disintegrate, and in 64 days the fermentation was complete. In order to secure a uniform rate of decomposition throughout the stack the whole material was mixed and restacked on the 30th and 50th days. The resulting material was dark, soft, and resembled well rotted farm yard manure. Analysis showed that it contained 2·25 lbs. of Nitrogen; or in other words that there had been a loss of 0·28 lbs. on the 1·23 lbs. and 1·30 lbs. of Nitrogen which the dry leaves and the Ammonium Sulphate had respectively contained. The experimenter contends that in more ideal conditions no loss of Nitrogen would have accrued. He urges all agriculturists to discontinue burning dry leaves and waste material into ashes which retain only the mineral ingredients and destroy absolutely the nitrogenous content; and asks them to convert their refuse into manure. For 1 cwt. of raw material, 4·2 lbs. of Ammonium Sulphate and 5·6 lbs. of Calcium Carbonate are required. Further experiments are being made to determine the relative efficiency of this artificial product as compared with ordinary cattle manure.

A Malabar Planter recently sent us a plant and asked for its name and the uses to which it might be put. On examination 'Cassia Hirsuta', it turned out to be the *Cassia hirsuta*, a common weed often to be found by the roadside especially in Coorg. In September 1920 the Sidapur Experimental Station staff rough forked and planted up some waste land with the seed. 182½ pounds of green plant was harvested on the 25th of the following January and used to mulch the coffee in the Farm. Mr. R. D. Anstead estimated at the time that an acre of waste land—planted with *hirsuta*, cut at the height of 1 foot in June, September and December—would produce annually ten tons of this green manure containing over 178 pounds of Nitrogen as efficient as that costing about Re. 1 per pound when bought in Poonac form.

INDIAN TEA ASSOCIATION SCIENTIFIC DEPARTMENT QUARTERLY JOURNAL

Part III of the 1925 volume of the *Indian Tea Association Scientific Department Quarterly Journal*, which has just reached us, contains three articles; the first by Mr. E. A. Andrews, the Entomologist, describing the progress of certain pruning experiments at Tocklai; the second by Mr. A. C. Tunstall, the Mycologist, on the preparation and application of Lime Solution; and the third summarizing the ground covered by the lectures which were to be delivered in November and December by the Tocklai Staff.

A. Pruning

A point brought out by the Pruning Experiments—in which the Assam, Chinese and Burmese varieties of tea were pruned in nine different ways—was the varying susceptibility of the different varieties to climatic effects. In 1923 the Tocklai rainfall was no less than 43·10 inches during the all important months of April, May, and June; whereas during the corresponding period of the following year it was only 19·3 in. In the former year when the rainfall was copious the Assam varieties did better than the Burmese; but in the latter year when weather conditions were not so favourable the reverse was the case; for the Burmese thrived while the more delicate Assam declined. It is believed however that the seven years over which the experiments which began in 1918 have now been conducted are a sufficiently long period for the formation of conclusions unvitiated by the ununiform effects of the weather on different varieties of plants.

These conclusions may perhaps be best summed up in the brief space at our disposal by enumerating in order of satisfactoriness the various original types of pruning employed. In the case of all the varieties,—Assam China and Burmese—under observation, a first cutting at 18 inches has given the best yields. The out-turn from an original 6 inch cutting has from 1918 to 1924 inclusive been almost as good as, and indeed in 1924 it was equal to, the yields from an 18 inch cut. Thirdly in point of out-turn comes 24 inch cutting (collar pruned at end of 3rd year); then the 12 inch, then the 2 inch, and last of all the two sets of collar prunings which are respectively pruned once a year and once in two years. The author sees no point in cuttings of between 2 and 6 inches which give no better results than the 2 inch cuttings, but are more likely to be damaged by white ants.

It will be interesting to note in subsequent reports whether cutting at 18 inches is still giving the best results or whether with the lapse of time it has had to give place to cutting at 6 inches or 24 inches as the case may be.

Finally it is advisable to mention that the trees under experiment were pruned 2 inches in 1924 ; with the exception of the set of original collar prunings which is, as mentioned above, only pruned once in two years and which had been pruned in 1923.

B. Lime Sulphur Solution

Mr. Tunstall opines that 20 pounds of Quick Lime and 22½ pounds of Sulphur to 50 gallons of water gives excellent results as an anti-pest spray. Sufficient water should be applied to the Lime to fully slake it ; and then another 30 gallons of water should be added and the mixture boiled. The sulphur is then gradually dissolved in the solution which must be vigorously stirred at the same time. Water to make 50 gallons of solution is then added and kept boiling for one hour ; losses due to evaporation being made good by further additions of water from time to time.

The solution should be applied in the following quantities and modes :—

Nature of Tea.	Quantity (per acre) in gallons.	Mode of application.
Unpruned well-grown...	200 to 300	With I. T. A. 4 nozzle attachment.
High pruned well grown ...	150 to 200	Do.
Low pruned ...	100 to 150	With an ordinary single nozzle.
One year old well grown seedlings ...	40 (per 1,000 plants).	Do.

C. Tocklai Lecture Course

This part gives a summary of the Chemical, Entomological, Mycological, and Meteorological lectures which are delivered at the November-December course in the morning and supplemented by practical demonstrations in the Field or Laboratory in the afternoon. Being already a summary, it does not lend itself to further précis ; and we must rest content with stating that it is in itself so interesting and informative that it leaves no doubt whatever as to the extraordinary benefit which must accrue to those fortunate enough to be in a position to attend the complete course. One example of the way in which the summariser gets down to all important but often overlooked fundamentals is his classification, of the Nitrogen, Phosphoric Acid, and Potash contents of manures, as the ingredients which promote respectively the vegetative growth, the regular development, and the disease-resisting power of the tea.

MONTHLY MARKET NOTES

BY

'EOTHEN'

(Concluded from page 889, issue of December 5)

COFFEE

Mr. Eric Miller, speaking at a recent company meeting gave one of his illuminating outlines, for which he is famous, this time on the coffee position. He considers that consumption has actually eaten into stocks. He described the San Paulo Coffee Defence Institute (which Mr. Henry Hoover, the U. S. Secretary for Commerce, likes about as much as he does the Stevenson rubber restriction scheme) and mentioned that other South American States had just concluded an agreement for the protection of coffee. The bulk of the Brazil crop is now cared for under existing arrangements, therefore. The total output of coffee during 1924-1925 was approximately 18 million bags. It is estimated that stocks held in the interior were reduced during the period by well over 2 million bags. As far as can be ascertained, the consumption of coffee in 1924-25 amounted to approximately 21½ million bags. The visible stocks at July 1, 1925, exclusive of coffee warehoused in the interior of Brazil were 5 million bags, or practically the same figure as at the corresponding date in 1924. The stocks in the interior at July 1, 1925, are estimated at under 2 million bags. This estimate may probably be on the low side, as was the estimate of these stocks a year ago.

Messrs. Jas. Cook and Company report that supplies offered in auction have been more plentiful during the past month, partly owing to new arrivals of African coffee and partly because holders have been desirous of clearing off parcels imported earlier in the season which, mostly on account of unattractiveness, did not then meet with demand. Lack of size has been a feature of the African coffee so far seen, which applies to Kenya, Kilimanjaro and Arusha varieties, but a few parcels from the Usambara district have been more satisfactory in respect of bean. Although fine descriptions continue in great request, nondescript sorts remain unwanted and often elicit no bids in auction, sales being only possible at considerable price concessions.

Messrs. Duuring's statistics show no striking change during October. The world's visible supply stands practically at the same figure as a month ago, viz. :—5,209,000 bags, whilst October deliveries of 1,771,000 bags in Europe and the States, though of normal dimensions, compare unfavourably with those of the previous month and those of October 1924. Perhaps the most noteworthy feature of the statistics is to find stocks of mild coffee in Europe 196,000 bags more than twelve months ago whilst in the United States they are 145,000 bags less.

LONDON,

November 12, 1925.

WYNAAD PLANTERS' ASSOCIATION

(INCORPORATED)

Proceedings of an Extraordinary General Meeting held at Meppadi Club
on Wednesday, December 2, 1925.

Present.

B. M. Behr, Esq. (*Chairman*), Messrs. J. E. Bisset, T. P. Gauld, J. A. Gwynne, H. J. C. Hammond, R. W. M. Hay, L. C. G. Hayne, R. P. N. Swayne, J. Strachan and I. W. Finlayson (*Honorary Secretary*).

The notice calling the meeting was read.

1 The minutes of the meeting held on October 18, 1925, were read and the special resolution passed altering Article 8 of the Articles of Association was confirmed.

2. The Minutes of the Meeting held on October 28, 1925, were taken as read and confirmed.

3. *Plague*.—Proposed from the Chair, 'That the Honorary Secretary be instructed to write to Dr. Govindan Nair, Moopenaad, and convey to him the thanks of this Association for the most excellent work done by him during the recent epidemic of Pneumonic Plague in the District.' *Carried unanimously.*

5. *Roads*.—The Chairman informed the meeting of an interview with the President of the District Board who had promised the Association all possible assistance.

6. *Labour Commissioner*.—Read letter from the Labour Commissioner in reply to an invitation to visit the District stating his inability to do so at present.

7. *Labour*.—The proposed scheme for introducing recruiting licenses and various other matters were thoroughly discussed and the Control Committee members informed of the meeting's opinion on each matter brought up by them.

Mr. Gwynne expressed the meeting's appreciation of the good work being put in by its Control Committee members and thanked them for the trouble they were taking to make the new scheme of working the Labour Department a success.

8. *Correspondence and other Competent Business*.—The Honorary Secretary was asked to write to the Superintendent of Posts and Telegraphs, Cannanore, regarding some recent irregularity in the service at Meppadi Post Office.

Read letter from Secretary, U.P.A.S.I., regarding a proposed acceleration of the train service from Bombay and the Chairman's reply stating that this Association was in favour of same.

The meeting then closed with a hearty vote of thanks to the Chair.

I. W. FINLAYSON,
Honorary Secretary.

B. M. BEHR,
Chairman.

HOTEL BOSOTTO, MADRAS

(LATE D'ANGELIS HOTEL)

RENOVATED THROUGHOUT

The only Hotel in South India fitted
with English sanitation and hot and cold water
in every room. Very Central,
Electric Light, Fans, Lift.

COMFORT MODERNE

Unsurpassed for good cuisine and
excellence of arrangements.
Confectionery, Garden, Restaurant.

RATES REASONABLE

The Hotel Guides meet every train and steamer.

Telegrams: BOSOTTO, MADRAS.

The American Express Coy. & Cook's coupons taken.

BOSOTTO BROS.,

Proprietors.

NITRATE OF SODA

IS

by far the best Nitrogenous Fertilizer

IT GIVES RESULTS

and the up-to-date Planter should insist that part at least of his

Nitrogen Requirements

should be derived from

NITRATE OF SODA

which contains 15.5 per cent NITROGEN

By special arrangement with the Chilean Nitrate Producers we are in a position to offer supplies of the above at most favourable rates which may be obtained on application to:—

PARRY & CO.

Managing Agents

Presidency Manure Works, Ltd.

POST BOX 12

MADRAS

CENTRAL TRAVANCORE PLANTERS' ASSOCIATION, PEERMADE

(INCORPORATED)

**Minutes of the Second Quarterly General Meeting held on Wednesday,
November 25, 1925, at 10 a.m. at Vandiperiyar Club.**

Present

Messrs. E. C. Sylvester (*Chairman*), J. H. Cantlay, R. J. McMullin, G. Newton, H. Gibbon, T. A. Kinmond, J. F. Fraser, W. F. Inman, W. B. Glenie, W. S. Rowson, M. R. Cogan, A. F. Leggatt, G. P. Farley and W. A. J. Milner (*Honorary Secretary*).

The Late Queen Alexandra

The Chairman said: 'Before proceeding with the business of the meeting there is one matter to which I should like to refer. I would ask you to rise and give your silent approval when I say that as loyal subjects we wish to record our sympathy with His Majesty the King and the Royal Family in the great loss they have sustained.'

The vote was passed all members standing. The Chairman also referred to the death of Mr. H. M. Knight, for many years the **Manager** in India of the Travancore Tea Estates Co., Ltd., and a vote of condolence with the widow was carried which the Honorary Secretary was instructed to convey to her.

1. Minutes of last General Meeting were taken as read and confirmed.
2. Minutes of Committee Meeting of August 8, 1925, were read and confirmed.

3. CORRESPONDENCE—

(a) *Building Rates*.—Decided that the extra rate for carpentry (planed work) should also apply to hard timber (Erumbarakey, Nangoo and other hard woods).

(b) *Credit in Bonami and Pambanar Bazaars*.—Decided that cases of credit being given to kanganies by bazaarmen should be reported to Superintendents of Bonami and Pambanar and that the Superintendents should further be asked to circularize all bazaaermen pointing out that credit should not be given and that any infringement of this rule would render the offenders liable to be turned out of their bazaars.

(c) Recorded letter from the Agricultural Service Bureau for Calcium Cynamide (Nitrolim), Mercantile Bank Buildings, Madras. Members interested can obtain full information regarding this fertilizer from the Bureau.

(d) *Game Poaching*.—The correspondence was read and after some discussion the following resolution was proposed from the Chair:—

'That a Committee of five members consisting of Messrs. Agar, Newton, Bissett, Kinmond and Inman (*Secretary*) be elected to form a Game Preservation Society and that Government be requested to afford it the necessary authority.'

Carried.

(e) *Planters' Trustee on the Cochin Port Trust.*—The Honorary Secretary's reply to the Secretary, U.P.A.S.I., was confirmed.

(f) *Auction of Royal Trees on Estate Land.*—Read letter from the Chief Secretary to Government, dated September 7, 1925 and resolved to reply requesting Government to be so good as to inform Estates concerned by letter before the auction is advertised in the Gazette.

4. *Reports of Bangalore Delegates.*—This was read and a hearty vote of thanks to delegates carried.

Their expenses were duly sanctioned.

Points brought up in connection with the report :

Export of Manures.—Mr. Sylvester informed the meeting that this important question was not being lost sight of by the Executive Committee.

Passages to wives of European Employees, U.P.A.S.I. Labour Department.

Read letter from the Director, pointing out that the effect of granting this concession would only be an average additional expenditure of 2½ pies per acre or Re. 1-6-0 per 100 acres subscribing to the Department per annum.

It was moved from the Chair that this Association was in favour of the proposal.

Carried unanimously.

The Honorary Secretary was to mention in his reply that as far as this Association was concerned practically all interests were paying wives' passages.

Rules for Inter-District Bolting Coolies.—A revised draft of these eliminating the wording objected to by the Executive Committee was read.

Rules 1 and 2 were approved.

Rule 3. Decided that there was no objection to the K.D.P.A.'s suggested alteration.

Rule 4. Approved.

Rule 5. Resolved that we were not in favour of more than 2 claims being recognized; any estate having a third claim should recover the debt through the Labour Department as best it can.

Rules 6, 7 and 8 were approved.

Read letter from the Director, Labour Department, dated November 14, and decided that the Honorary Secretary should reply asking for further information on the matter and for a copy of the letter to be sent to every Estate Superintendent.

3. (a) *Election of Control Committee Members.*—

	<i>Active</i>	<i>In waiting</i>
Palamcottah :	A. R. St. George	J. M. Wilkie, C. J. Madden.
Coimbatore :	G. P. Farley (till return of H. Clarke from leave)	G. S. Napier Ford. M. R. Cogan.
Srivilliputtur :	J. H. Cantlay (no change)	W. F. Inman.

4. *Personal Membership, U.P.A.S.I.*—

Resolved that no alteration of our Articles of Association was necessary under this head, Superintendents and Assistants of Estates subscribing to the U.P.A.S.I. being already eligible for membership of the Sports Club.

5. *Planters' Benevolent Fund.*—

The Honorary Secretary stated that 21 members and one estate had so far subscribed and that he was calling for subscriptions from regular subscribers just returned from leave as well as from other members who had not paid this year's subscriptions.

Mr. Fraser wished his appreciation of the Executive Committee's grant of assistance in the case put forward by him to be recorded.

U.P.A.S.I. Sports Club.—The suggestion that these subscriptions should be collected through the Honorary Secretaries of Peermade and Vandiperiyar Clubs was approved.

Mr. Farley appealed to all non-members to join up.

Rates of Subscriptions this year.—

	RS
Salaries of Rs. 1,000 and over	... 25
„ „ 500 and under 1,000	... 15
„ „ under 500	... 5

Present members of Sports Club in the district.—

Messrs. J. S. Wilkie, J. M. Wilkie, G. P. Farley, W. F. Inman, J. F. Fraser, B. P. Tailyour, R. J. McMullin, E. C. Sylvester, W. A. J. Milner, A. R. St. George, J. H. Cantlay and T. A. Kinmond.

6. *Sri Mulam Delegates.*—The Committee's election of Mr. T. A. Kinmond was confirmed and it was resolved that our two subjects should be

- (1) Cattle Pounds.
- (2) Game Preservation Society.

7. *Sign-Posts on Roads.*—

Proposed by Mr. C. J. Madden and seconded by Mr. Fraser :

'That the members of this Association agree to erect sign posts at all cross roads and turn-offs in their estates to direct visitors ignorant of the roads and that the Honorary Secretary be instructed to write to the Assistant Engineer, Peermade, to request that the Government Roads be equipped with the necessary sign posts'.

Carried.

Kumili-Kodaikanal Road.

The Chairman stated what the position with regard to the correspondence with the Collector, Madura, on the question was and proposed that, if the road was not put into good order by the end of the next financial year, H. E. the Governor of Madras should be asked to receive a deputation from the Association on the subject and that the K.D.P.A. should be asked to join us.

This was carried unanimously.

8. Mr. Madden's second Resolution *re* passengers on lorries was not carried, it being understood that the Police were taking the necessary action. With a view to assisting the Police the Honorary Secretary was requested to advise all estates using lorries that no passengers except those provided with a pass signed by the Superintendent of the estate should be carried.

9. District Telephones.—

A committee composed of Messrs. Sylvester, Cantlay, Farley, Inman, Madden and Kinmond was appointed to deal with this question. Mr. Inman kindly agreed to act as Secretary.

10. Registration of Estate Carts.

A hearty vote of thanks to the Committee who had drawn up the scheme in this connection was passed and Mr. Cantlay was asked to order the necessary rollers and number plates.

11. *Tea Thetls.*—The Honorary Secretary was directed to write to the Commissioner, Devicolum, asking for the favour of an early reply to his letter of July 30.

12. *Election of Honorary Secretary.*—The Chairman stated it would be necessary to elect an Honorary Secretary in place of Mr. Milner, who would shortly be going home on leave, but, before proceeding to the election, he would like to ask the meeting to record the Association's great appreciation of Mr. Milner's work during the long period he had acted as Honorary Secretary. This was carried with applause.

Mr. Milner, in expressing his thanks' asked the meeting to sanction a bonus to his office writer in recognition of his long service and hard work. This was agreed to unanimously.

Mr. T. A. Kinmond was then unanimously elected Honorary Secretary of the Association.

13. Mr. Sylvester gave members an interesting resumé of what occurred at the recent Executive Committee Meeting and mentioned that copies of the Secretary's progress reports could be obtained by any one interested from the Secretary, U.P.A.S.I., on application.

The meeting then closed with a vote of thanks to the Chair.

W. A. S. MILNER,
Honorary Secretary.

E. C. SYLVESTER,
Chairman.

LETTERS TO THE EDITOR

(The 'Planters' Chronicle' is not responsible for the opinion of its correspondents.)

Export of Indigenous Manures

THE EDITOR,

'THE PLANTERS' CHRONICLE',

MADRAS.

SIR,

A statement has been made that the protagonists of an export duty have not answered the 'arguments' of the Indian Fiscal Commission of 1922. There are no arguments, there's the rub, on either side if you like, but merely assertions. One side say such and such results will follow on a duty, the other side say just the opposite. The only way is to try it out, at first on such a moderate scale, Re. 1 or Rs. 2 a ton, as would not upset the market even if the 'protectionists' were wrong and not right. There you have a hard fact at any rate in the shape of about Rs. 16 lacs per annum, and here I would digress on a most important suggestion made that while, say half goes to the Agricultural Departments for encouraging use of manures, erection of oil mills, etc., half or 8 lacs might go as a bonus to reduce the price to consumers in India. There may be difficulties in detail but that I leave to abler pens than mine.

So far we have got to mere assertions, in this resembling the protection controversy, and it seems likely to engender as much heat. I will not use the word 'Free Trade', the thing does not exist and neither should the word. No country that has adopted Protection has ever gone back on it, but rather increased it, and this includes most of the leading countries of the world. But it differs from Protection in this, the one is designed to secure employment at fair wages, the other to prevent the life-blood of a country from being drained.

But as a challenge has been made, let us examine these assertions of the Fiscal Commission. (*Planters' Chronicle*, p. 824.) 'The reduction in the price of the oil cake would be effected at the expense of the producer of the oil seeds (?) and therefore this potential user of the manure would be impoverished and might not be able to afford to use it even at the reduced price.' This is equivalent to saying that if the price of offal fell (not the wheat mind you this is equivalent to the oil) the farmer owner would not be able to eat his own bread and would perish of hunger. Too easy, next please.

'If the manure is cheapened to such a degree as would be likely to stimulate its consumption largely, it is probable that production would diminish (?) owing to decreased profits and eventually prices would again be raised.'

The Commission misses the whole point and rock basis of the argument, which is that the whole or these indigenous manures are not the main crop but a by-product.

Fish.—The main product is, or should be food and fish oil. Fishing is a caste and a lifelong trade. When the price is very high the fisherman will not go out more often than is sufficient to satisfy his needs. When the price is low he is obliged to go out more often and to produce more fish.

Oilseeds.—When the price is high or even paying (and with the world demand for oil it is not likely ever to be not paying) even if the price for *poonac* was low, he cannot produce less *poonac* and is not likely to leave it to rot.

Bones.—These (and hides) merely mean obtaining some compensation for a dead loss. The ryot does not breed cattle for the bones, any more than he grows oilseeds for the *poonac*. Twenty years ago when the price for all these by-products was 1/3rd of what it is now these were brought in more freely, if anything, than they are now.

I must apologize for introducing these very elementary facts but it seems to be necessary.

'Danger of a gap' p. 823. It is rather unkind to suggest that these 'arguments' i.e. assertions, have not been answered. I thought I had answered a good many of them, at least indirectly in my last. But 'none so blind as those who won't see' or read. There won't be no gap, the whole process must be gradual and feeling one's way.

P. 823. 'Cultivators prejudiced and not educated upto appreciation of manures.' Quite so, and this is precisely what the Agricultural Departments, helped by the tax, is out to remove. But a great deal too much is made of this bogey of prejudice. Helped by the Agricultural Departments common sense and economic pressure, this is rapidly passing away. I can remember the time when even cattle manure was not believed in, but left to smoulder in immense heaps. Now every basket full is used. The Commission seems to have been ignorant of the fact that the bulk of the cultivation is done by the lower castes. Even now quite high castes among the Sudras have no real objection to putting out, e.g., bone meal by hand on the estates, provided they have a good wash down every evening. The reports of the Agricultural Departments are full of experiments conducted by ryots with bone meal.

P. 824 'More important. The cultivator is usually not in an economic position to be able to afford to use artificial manures'.

Certainly, when the price is forced up to fancy figures by export the temptation is to sell, to his own eventual detriment. But to say he cannot 'afford', to use his own manures if he realized the value of them, is merely silly. It is to say that in a time of scarcity the farmer could not afford to eat his own butter, fowls, etc., At any rate, I think the advocates of an export duty have now answered the assertions of their opponents, and have moreover put forward definite proposals, and all they have met so far has been a mere *non possumus*.

Another argument put forward against our proposals is that they may benefit the ryot but will not help the Planter (though I have endeavoured to show that eventually they will help the Planter). Therefore (goes the argument) it is not the business of the Upasi to help the ryot and you are wasting its time. I would here introduce an analogy. In several countries a 'Farmers' Party' has been formed in Parliament, concerned only with their own interests, without concern for the general interests of the country. In every case they have gone to pieces. Now about the Ryot. Of course we have no concern for the ryot. He only supplies directly or indirectly all our labour, most of our carts and all the manures we have been speaking of. Why, the main case for our special labour laws

and all the sympathy and help we can get from Government rests on the absolute interdependence of prosperity between planting industries and the ryot.

Of course there are other far more important subjects to take up the Upasi's time. There is the question of 'whether the Association's Trustee on the Board of Trustees of the Cochin Port Trust shall be elected by postal vote'. This reminds one of the song 'Who takes tea with the tea planter's daughter when the tea planter's planting tea?' There is the important question as to whether old bed-ridden Mrs. X shall be given Rs. 50 a month, or Rs. 55.

There is the still more important question of designing a peacock to wear on the players and jerseys of members of the Sports Club. By the way, why not a parrot? 'Proud's parrot "Oh, you prou'del parro" I say's'. Kipling's Mr. Glass! Still, I am the humble member for a decrepit industry called Coffee, and they venture to think the question of some small importance.

SOMWARPETT, }
November 28, 1925. }

Yours, etc.,
L. NEWCOME.

The Richardson Veterans' Tennis Cup

SIR,

With reference to the Veterans' Tennis Cup I will be very glad to inaugurate this competition, and to present the cup yearly so long as I am resident in India; but the terms of the match I must leave to members to settle. The age-limit I would suggest as 50.

If singles are considered too strenuous, and doubles are decided on, perhaps two smaller cups would meet the case. I also agree that the competition should be open to members of the Sports Club only.

COCHIN,
December 8, 1925.

Yours, etc.,
J. A. RICHARDSON.

U.P.A.S.I. SPORTS CLUB

Planters' Week, February 1926

Accommodation will be available at the following daily rates and places, to which enquiries and bookings should be directly addressed:—

Establishment	Single Room			Double Room (for 2 people)		
	Rs.	A.	P.	Rs.	A.	P.
Savoy Hotel	10	0	0	20	0	0
Hotel Cecil				15	0	0
Firgrove Private Hotel (apply to Mrs. McCulloch)	7	8	0	14	0	0
Willingdon House	8	0	0	14	0	0
Miss de Merville	8	8	0	17	0	0

M. B. BARBER,
Hon. Secretary,
Entertainment Committee.

U. P. A. S. I. SPORTS CLUB

Planters' Week, February 1296—(continued.)

REVISED PROGRAMME

Date	Day Events	Night Events
Fri. 19th ..	3 p.m. at Golf House Committee Meeting Draws for tennis and golf New Cups on view Admission tickets available from Honorary Secretary, 4 to 6 p.m. Tennis Courts and Golf Caddies available for practice games	
Sat. 20th ..	GOLF—Inter District, 10 a.m. TENNIS—Inter District, 10 a.m.	} <i>Assembly Rooms—</i> <i>Promenade Concert</i> <i>and Dance, 5.30</i> <i>p.m</i>
Sun. 21st ...	GOLF—Inter District (final in afternoon) TENNIS—Inter District and Ladies 'MURPHY' Cup	}
Mon. 22nd ...	TENNIS—Inter District (finish) Ladies 'MURPHY' Cup and Men's 'HARPER' Cup	} <i>Woodside—</i> <i>Subscription dance,</i> <i>9.30 p.m.</i>
Tues. 23rd ...	TENNIS—Murphy and Harper Cups (finish) ... PRIZE DISTRIBUTION—At Golf House, 5.30 p.m. ANNUAL GENERAL MEETING—At Golf House, 6 p.m.	<i>Assembly Rooms—</i> <i>Cinema, 5.30 p.m.</i> <i>Woodside—</i> <i>Dancing before</i> <i>dinner.</i>
Wed. 24th ...	CRICKET—Trial Match 'PICK UP' A and B sides, 11 a.m.	} <i>Assembly Rooms—</i> <i>Cinema, 5.30 p.m</i> <i>Woodside—</i> <i>MURPHY' BALL,</i> <i>9.30 p.m.</i>
Thurs. 25th ..	CRICKET—Planters v. Wellington, Gymkhana, 11 a.m. CHILDREN'S FANCY DRESS TEA AND DANCE—At Woodside, 4 p.m.	} <i>Woodside—</i> <i>Dancing before</i> <i>dinner.</i> <i>Assembly Rooms—</i> <i>'REVUE', 9.45 p.m.</i>
Fri. 26th ...	CRICKET—Planters v. M.C.C., 12 (midday) ...	<i>Assembly Rooms—</i> <i>Fancy Dress Ball,</i> <i>9.30 p.m</i>
Sat. 27th ...	CRICKET—Planters v. M.C.C., 11 a.m. ...	<i>Assembly Rooms—</i> <i>Cinema, 5 p.m.</i> <i>Ooty Club—</i> <i>M.C.C. Dinner, 8.15</i> <i>p.m.</i> <i>Woodside—</i> <i>Cinderella Dance,</i> <i>9.30 p.m.</i>
Sun. 28th ...	CRICKET—Planters v. Indians, 11 a.m. GOLF—Planters v. M.C.C. (morning)	

N.B.—The ties in the 'Murphy' Cup for Ladies may possibly have to be played off at the Woodside Courts on the cricket mornings in the latter half of the week; instead of at the venue and on the dates noted above.

G. W. FULCHER,
Honorary Secretary.

COMMERCIAL AND METEOROLOGICAL

I. The Rupee Exchange for the week ending December 5th, 1925
Bank Selling Demand Draft on London

30th	1st	2nd	3rd	4th	5th
18 5/32d.	18 5/32d.	18 5/32d.	18 5/32d.	18 5/32d.	18 5/32d.

II. Summary of latest Market Reports and Prices to hand :—

(a) Some of the higher London Prices—

Best prices realized on the London Market				Average prices obtained for tea						
Mark	Pkgs.	Price		District	Week ending November 7, 1925	January 1 to November 7, 1925	January 1 to November 7, 1924			
TEA (WEEK ENDING NOVEMBER 7, 1925)					s.	d.	s.	d.	s.	d.
(a) <i>Anamallais</i> —				N. India.	1	6·62	1	5·23	1	7·31
Mukkottumudi ...	196	1	7	S. India	**1	6·63	†1	5·36	†1	6·59
Nadu Arr ...	143	1	6½	Ceylon...	1	10·94	1	7·81	1	8·39
Sholayar ...	123	1	6½	Java ...	0	11·87	1	0·68	1	3·09
				Sumatra	1	4·05	1	4·20	1	5·56
				Nyassa-land.		Nil	1	0·91	1	4·43
(b) <i>Central Travancore</i>				Total	*1	7·26	†1	5·68	†1	7·27
Pirmed ...	177	1	5½							
Ladrum ...	160	1	5½							
Pambanar ...	77	1	5							
(c) <i>Kanen Devans</i> —										
Guderal ...	145	1	8½							
Munnar ...	131	1	8							
Letchmi ...	123	1	8							
(d) <i>Nilgiris</i> —										
Brooklands ..	40	1	9½							
Thiashola ..	114	1	9½							
Glendale ...	100	1	8½							
(e) <i>Nilgiri-Wynaad</i> —										
Barwood ...	57	1	2½							

(b) SPECIAL COFFEE CABLE	
LONDON, DECEMBER 9, 1925	
'A' COFFEE	
140 s. PER CWT.	
MARKET QUIET	

(b) SPECIAL COFFEE CABLE

LONDON, DECEMBER 9, 1925

'A' COFFEE

140 s. PER CWT.

MARKET QUIET

** Based on 5,317 packages.

* Based on 64,593 packages.

†† " " 164,461 "

† " " 2,727,182 "

†† " " 118,596 "

† " " 2,531,320 "

(N.B.—We reproduce the averages published last week, and add some fresh selections from the prices realized, as the Tea Association's Report for the week ending November 14, has not come to hand. *Ed.*)

(c) *Précis of reports on London Markets received on December 7 and covering the week ending Wednesday, November 18 :—*

(1) *Tea.*—During the week under review Southern Indians remained in keen demand in a uniformly strong market ; in which the finest qualities of tea remained steady at last week's prices, while common to medium types marked a rise of about 1d. per pound. The Northern Indian crop in October 1925 was 9 million pounds less than in October 1924, and the immediate prospects throughout Assam and in Darjeeling are bad. Except perhaps in Southern Cachar, and Western Dooars, where the weather has been more seasonable, the season is likely to come an early close. It is anticipated in some authoritative quarters that the total crop will be some 20 million pounds less than that of 1924.

(2) *Rubber.*—The Market continued to fluctuate from hour to hour, and on the Monday of the week under review, when the average price was 53d., business was actually done at prices ranging from 4/2½d. to 4/6½d. The London stocks, which stood at 4,932 tons the fortnight previously and were reported in our last issue to have fallen by 26 tons to 4,906 tons, were reduced during the week under reply by another 402 tons so that at its close they stood at 4,504 tons.

(3) *Coffee.*—The Coffee offered during the week under précis was exclusively Kenyan, Tanganyikan, and Ugandan ; and, though demand was slack and little was sold, what was disposed of realized prices equal to those obtained the week before. Home and export buyers continued apathetic, and there are no signs of awakening interest in next season's plantation coffee on C.I.F. terms.

III. Weekly Rainfall Statement

From April 1, 1925, up to and including Saturday, December 5, 1925

Stations are arranged in order approximately south to north and those not in planting districts are shown in small capitals.

Stations	W.	P.	Total	Stations	W.	P.	Total
1. Kalthuritty.	2·35	88·12	90·47	19. Coonoor ...	1·24	53·50	54·74
2. *Tenmalai.	1·00	95·30	96·30	20. Kotagiri ...	1·93	46·34	48·27
3. Mundakayam.	Nil	147·35	147·35	21. Ootacamund	1·07	42·61	43·68
4. *Peermade.	0·78	165·91	167·69	22. Yercaud ...	2·52	40·81	43·33
5. Twyford ...	0·66	198·59	199·25	23. Devala ...	0·59	127·87	128·46
6. V'periyar ...	1·27	76·37	77·64	24. Gudalur ...	0·24	71·51	71·75
7. Kalaar ...	1·03	206·56	207·59	25. CALICUT ...	1·41	128·11	129·52
8. Chittuvurrai	1·36	49·07	50·43	26. Kuttiyadi ...	3·72	171·45	175·17
9. BODI KANUR	N.R.	18·64	N.R.	27. Vayittiri ...	0·73	156·70	157·43
10. COCHIN ...	N.R.	106·68	N.R.	28. Manantoddi.	1·41	108·15	109·56
11. *Mooply ...	2·45	108·66	111·11	29. Billigiris ...	2·67	56·88	59·55
12. Mooply Valley	2·42	120·05	122·47	30. *Sidapur ...	0·34	70·75	71·09
13. Pachaimalai	1·04	120·92	121·96	31. Pollibetta ...	0·40	81·08	81·48
14. Mudis ...	1·70	195·41	197·11	32. Somwarpett	0·16	80·72	80·88
15. POLLACHIE.	0·22	25·90	26·12	33. Ballupete ...	N.R.	71·99	N.R.
16. Manjeri ...	0·33	123·28	123·61	34. MANGALORE.	0·04	137·69	137·73
17. Nilambur ...	1·16	98·88	100·04	35. MADRAS ...	5·15	47·32	52·47
18. Naduvattam	0·86	80·29	81·15				

W = During the week.

P = Previously.

N.R. = No return.

* = U.P.A.S.I. Ex. Station.

The Planters' Chronicle

Recognized as the Official Organ of the U. P. A. S. I. (Incorporated)

Managing Editor's Postal Address : POST BOX 155, MADRAS

Do. do. Registered Telegraphic Address : UPASI, Madras

VOL. XX, NO. 51] SAT., DECEMBER 19, 1925 [PRICE, AS. 8

CONTENTS

	PAGE		PAGE
Editorial Notes ...	919	U.P.A.S.I. Sports Club ...	930
Rubber and Engineering ...	921	Letters to Editor—	
The Coffee Borer ...	922	Motor Mileage... ..	931
Classifications of Tea ...	925	Labour Department ...	931
District Association Meeting—		U.P.A.S.C. Badge ...	931
Kanan Devans	928	'Just' (but only just) Verse ...	932
District Notes—		Commercial and Meteorolo-	
South Coorg	930	gical	933

EDITORIAL NOTES

Will readers desirous of obtaining a bound volume of *The Planters' Chronicle* for 1925, at Rs. 5 plus postage, kindly place their orders at once ; as the Edition is limited to 100 and is already nearly sold out? Readers proposing to have the copies they receive each week bound for themselves at the end of the year can obtain an index for inclusion in the volume at 12 as. post free, provided their order—accompanied by a remittance—is placed with us before the end of next week when the Index will be sent to the press.

The following is an extract from a recent report by Mr. G. W. Priestley, I.C.S., on resettlement in the Pachamalai Hills :—
A Way of Escape '800 men of Vannadu were absent on the estates last September. From the little that is known, these hill men have never had too pleasant a time. Opportunities for large numbers of men to go and work on estates have not been in existence for very many years, and the state of things on the Pachchaimalais seems to be due more to the discovery by the Malayalis of the possibilities of emigration than to anything else. A young Malayali by going off to an estate escapes from the possibility of being "pledged" by the elders of his family. He can get married without being compelled forthwith to share his father-in-law's intolerable burden of debt and he gets to a place where reasonable wages are paid—away from the sort of thing shown in the miscellaneous documents of 1912 where a man and his wife undertook to work for six years for the joint wage of Rs. 13-5-0 per annum and their keep. Imagine it !—two people earning just over Re. 1, a month !!

The wonder is not that they go, but that anyone stays.

Migration to the estates is the one way of escape from an economic position that has become intolerable and it seems to be a thing to be encouraged.'

Lord Inchcape's speech at last week's 85th Annual General Meeting of the P. & O. Company seems almost to controvert the lesson *British Trade* which Wembley was intended to convey. That great exhibition focussed attention on the British Commonwealth as a self-supporting body politic, and popularized to an extraordinary degree the apothegm 'Buy British Goods.' Lord Inchcape, looking at the industrial future of the Empire through the sorry spectacle of the depressed shipping industry, accepts wholeheartedly Sir Hugh Bell's view that generally speaking an industry should be compelled to rely on its own resources and should not be subsidized by the State. He does not believe that the future will see a self-contained British Commonwealth, with Great Britain manufacturing goods from the raw materials which its Dominions supply. He points to the high preferential tariffs of Australia and India for example; and asserts that the aim of the Dominions is to become self-contained themselves, and that that aim will find gradual realization as their nascent industries mature. He considers that it will be necessary for Great Britain to look more and more to foreign markets as time goes on.

A South Coorg correspondent informs us that the four days of rain, *Coffee in Coorg* which he and his neighbours experienced last week, have had a most prejudicial effect on the coffee about to be picked. He fears that this year most of the Coorg estates will experience considerable loss. We trust however that the immediate future will after all be brighter than present prospects seem to denote.

Mr. H. T. Ashplant, Rubber Mycologist to the U.P.A.S.I., in a leading article in last week's *The Financial Times* *Bud-Grafting* bemoans the backwardness of British (especially Malayan) plantations as compared with those of the Dutch East Indies in the matter of Bud-grafting which has given excellent results wherever it has been tried and will he believes will be a prominent feature in the development of the rubber industry during the next few years.

Some of our readers will be interested to learn that Messrs. Thos. Cook & Son, Ltd., are opening a Madras Office in Mount Road *Messrs. Thos. Cook & Son* facing the Neil statue at the corner of the Club Road. The Firm, we may add, are in April next moving its London Head-quarters from Ludgate Circus to magnificent premises in Berkeley Street, Piccadilly, W. I.

Some twenty newly captured young elephants will be auctioned early next month, and possible purchasers are invited to *Sale of Elephants* communicate with Mr. B. V. Ramaiengar, Conservator of Forests, in Mysore.

The Ceylon Daily News learn that the Indian Government proposes to insist on the introduction of a standard wage for Indian labourers on Ceylon estates. This presumably means that *Wages in Ceylon* it is dissatisfied with the following resolution which was passed on November 13 at a General Committee Meeting of the Planters' Association of Ceylon:—'That the Ceylon Government be requested to inform the Government of India that certain promising proposals are now being considered, and to ask that the Government of India postpone coming to a decision until such proposals can be put before them.'

RUBBER AND ENGINEERING

In a Foreword and seven sections comprising 25 pages, Dr. H. P. Stevens and Mr. B. D. Porritt have given a most interesting account of the Extraction and Properties of raw rubber ; of the Goods made therefrom ; of Vulcanization ; of the Properties of the vulcanized product ; of the Branches of the Rubber Industry in general ; of the Engineering Branch in particular ; and of the Conservation of rubber goods. We have seen no other compilation which covers the same ground anything like so thoroughly in such limited space ; and we have no doubt whatever that the hand book not only proved invaluable to visitors to the Rubber Growers' Association's Exhibit at the Shipping, Engineering, and Machinery Exhibition held at Home at the end of last month, but also will be of inestimable value in bringing home to engineers all the world over the almost infinite possibilities of rubber to promote more efficient working and to reduce overhead costs.

The sections on 'The Properties of Vulcanized Rubber' and 'Some Applications of Rubber in Engineering' are naturally the most prominent features of this *ad hoc* publication ; but the other sections are also full of interesting information, and could be read profitably by experts as well as by the public at large. We learn for instance that although rubber works were opened in London in 1820, and R. W. Thomson invented the pneumatic tyre as far back as 1845, yet the sensitiveness of the raw product to changes of temperature and to solvents precluded its extensive use until the late eighties when Hancock and Goodyear discovered the modifications which vulcanization produced. Had it not been for this epoch making discovery the applications of rubber would to-day still be only extensible, beyond the few products like crepe rubber soles for which the untreated raw material is suitable, by either the use of extensive solvents or the utilization of latex in liquid form. Incidentally we note that the latter is being increasingly exported from the East, and it would therefore appear that the technical difficulties involved in the incorporation of the necessary powders with the latex are being gradually overcome.

The two principal sections of the Book are devoted to showing how the whole position was changed by the vulcanization process in which rubber is compounded with sulphur and other ingredients at a temperature which may be as low as 100°C., if suitable accelerators are employed. These ingredients are of three mineral types : coarse powders such as Barytes and Chalk which are little more than dilutors ; substances such as refined China clay which have some reinforcing effect ; and the reinforcing pigments *par excellence* such as Carbonate of Magnesia, Zinc Oxide, and 'Carbon black'. The organic types comprise glues, bitumens, and fatty and sulphurized oils. Each admixture produces its own result, and gives unique properties to the finished product ; which can therefore be turned out in almost infinite varieties suitable for application over an extraordinarily wide range. Graphs of load-stretch and stress-strain curves bring out forcibly the modifications produced by the employment of different compounding ingredients, and indicate that rubber suitably vulcanized can be advantageously substituted for practically any material from the wood pulp setting of brush bristles to the metal content of railway buffers and springs. The handbook—which can be obtained free from the Propaganda Secretary, The Rubber Growers' Association, 2, Idol Lande, London, E.C. 3.—concludes with a Bibliography, a list of Rubber technical institutions in England, and a Glossary of technical terms.

THE COFFEE BORER

BY

DR. K. KUNHI KANNAN, M.A., PH.D.,
ENTOMOLOGIST, DEPARTMENT OF AGRICULTURE,
MYSORE

Having been out on tour I was not able to see until my return a couple of days ago, your admirable *précis* (pages 857 *et seq.*, issue of November 21, 1925—*Ed.*) of the information regarding coffee borer that has appeared from time to time in the issues of the *Planters' Chronicle*. In view of the renewed interest in the pest which the article will have stimulated among your readers, I feel it necessary to furnish them through your columns with a brief summary of the investigations carried on in the Entomological Section of the Department of Agriculture, Mysore. The work was commenced in 1915 along with that of Green bug which appeared in Mysore about that time; and has continued ever since off and on whenever the limited staff of the Entomological Section found time to spare from more urgent work.

A great deal of information has been gathered both from field observations and experiments; but has not been published in the hope that a definite announcement as to the most successful line of control could be made before long. In the meanwhile the more important results have been published from time to time in the reports of the Entomological Section and in circulars of which two at least have been published in the *Chronicle* as well.

The line of control that was first recommended by this Department is that of scrubbing the coffee stems. This was suggested by the habit of the female beetle of laying eggs beneath the scales on the bark of the tree, where the legless grub on hatching can get sufficient hold to penetrate into the bark. In the absence of these scales, the beetles cannot find secure lodgement for their eggs which are not bathed in any copious secretion for attachment to the stem. The operation was to be repeated after a fortnight; to destroy such eggs as were laid in spite of the first scrubbing and to make the removal of the scales more thorough. Adult beetles found in the course of the work are also picked and destroyed. This recommendation has been followed on several estates; and one Muhamadan planter who owns several thousands of acres of coffee reported to me recently that he has obtained uniformly excellent results.

To many planters however the provision of labour for this additional item of work on the estate in the last quarter of the year—when besides other work there is coffee picking also to be done—is a serious difficulty in the way; and consequently an attempt has also been made to find other remedies. One of these was a wash made out of a tar product applied to the stems soon after the picking season was over. This remedy was based on the habit of the young grub of making its initial tunnels superficially in one or two rings round the stem and not getting deeper into the wood until two to two and a half months after hatching. The droppings in these superficial tunnels are usually loosely packed and any chemical could easily penetrate through them as far as the grub, where the fumes diffusing round would choke and finally kill it,

The chemical did all that was expected of it and the results from preliminary trials were very encouraging. Unfortunately in the third year, its application to trees (apparently for the most part weakened by stump rot) adversely affected them; and it was suspected that the chemical was not identical with the supplies used on the two previous occasions. The surmise was soon confirmed by similar results with the chemical obtained in the United States. The subject was taken up with the manufacturers for supplies of a uniform chemical standard but this was apparently impossible as the chemical was no more than a crude tar distillate. It was therefore decided to seek other lines of control and in 1923 two methods were tested: one wrapping the trees with date palm strips and the other picking the adult beetles. Both were fairly good; but while wrapping was found to answer well it was observed many trees could not be satisfactorily wrapped and furthermore there were difficulties in getting supplies of the wrapping material in sufficient quantity. The cost too was high. Thus picking of beetles was found easier; and the results as I have shown in my circular referred to in your précis, were very encouraging. As a result of handpicking in the first year of experiment, against 1,139 trees pulled out in the check plot of 5 acres only 540 trees were removed from the experimental plot of the same area. In the succeeding year 1924 work was done on two estates and the results obtained are tabulated below.—

Estate	Total acreage	Acres hand-picked in 1924	Beetles collected 1924	Number of trees pulled out from the entire estate in		
				1924	Expecta-tion for 1925	Actual for 1925
A	50	8 acres	6,231	15,541	18,649	10,032
B	200	5 „	2,000	19,400	23,280	18,070

It will be noticed that the results are shown for the whole estate and not for a check plot of the same size as the experimental plot. There is good reason to believe both from the movements of the beetles and other factors that the effect of picking is not local to the plots and its immediate neighbourhood but on the estate as a whole. The reduction in the total of trees may appear small but has to be considered in the light of two important facts, (1) that the area picked was but a fraction of the total area in each and (2) that according to figures supplied of trees pulled out in the estate in the neighbourhood the figures for this year in both the estates must have been at least 20 per cent more than the last year's figure. The actuals in the last column have to be compared with the figures which normally should have been expected, to realize the full benefit of hand-picking. To take the estate 'A' where 8 acres out of 80 were handpicked the reduction from 15,541 trees in 1924 to 10,032 in 1925 when the expectation was 18,649 is substantial and when it is remembered that the cost was no more than Rs. 80 for the season for the 8 acres the remedy appears certainly practical and cheap. The savings effected are equivalent to the saving from entire destruction of 7 acres of coffee which at a very low estimate may cost anywhere from Rs. 2,000 to 3,000.

In the light of these facts there can be no doubt that picking promises to be a simple way of controlling the pest which requires little technical

skill and not more than Rs. 10 per acre for the areas to be handpicked which are usually confined to the sunny patches.

This year the work has been extended in area on estate 'A'. 35 acres out of 50 acres have been gone over with a result so far of 5,592 beetles. Another estate of no more than 20 acres has had the entire area handpicked in order to determine more accurately the distribution of the beetles according to shade and other factors. 3,070 beetles have been caught on this estate. It is proposed to carry the picking work on this isolated estate for at least three years to see how far the pest can be eradicated.

Labour difficulty exists to a certain extent in regard to this remedy also, but not so much as to deter the planters from what is after all a very simple operation. In the first place there does not appear so far to be any necessity for going over the entire estate, secondly the beetles being active during the warm hours it is very likely that picking need be done only in the afternoon, the mornings being devoted to the routine work of the estate.

Before passing on, one important fact should not be lost sight of. It is only the experience gained on estates in Mysore that has been set forth above. What the behaviour of the beetles is, in other parts of the coffee growing area in South India, how different conditions of shade, of rainfall and elevation modify it, has not been ascertained. It is impossible to say before information on these points is obtained whether handpicking can be practised in those areas. In spite of my circular on the subject inviting planters outside Mysore to try the remedy no one has yet made a trial.

Besides handpicking, there are one or two other methods to which it is proposed to give a trial. One is applying a sticky wash which will retain its property for two months so that beetles which pass along the stem or their egg laying apparatus will be entangled. Another is to dust the trees with a suitable poison which will be swallowed by the young grub while penetrating and kill it. Both these however are likely to be far more expensive than handpicking and it may after all be that the last may prove to be most practical of all the lines of control.

One other line of control is of the introduction of parasites that attack the borer. This method has been under trial in Cochin China but it is yet too early for definite results. If the method is found effective there, then, it will be time to consider its adaptability to this country. In the meanwhile an attempt is being made to obtain the parasites that undoubtedly exist in South India. Several specimens have been already obtained, but in fragments; but attempts will continue to be made to secure entire specimens and identify them. If the parasites from South India are identical with those now being tested in Cochin China there is little to be gained by importation. If they are different their introduction may prove distinctly beneficial.

In conclusion I should like to assure coffee planters that everything is being done to complete the investigation of the pest and that as soon as all the results required are available a bulletin will be issued on the subject. In the meanwhile I would request them to furnish me with the records as far as they are available of rainfall and of trees pulled out from their estates. The wider the area from which these statistics can be obtained and the longer the period covered by them the more correct will be the interpretation of the observations and experiments made here.

CLASSIFICATIONS OF TEA

Generally speaking, says the *Tea and Coffee Trade Journal*, teas may be divided into three classes,—1, fermented or black; 2, unfermented or green; 3, the semi-fermented or oolong teas. The tea plant is practically the same plant in all countries, the differences in the various classes mentioned being due to methods of manufacture and local climatic soil, and cultivation conditions. There are 1,300 specimens and over 2,000 possible blends.

The fermented or black teas include the China congou or 'English breakfast' teas, subdivided into North China congou (black leaf) from Hankow and the South China congou (red leaf) from Foochow; India, Ceylon, and Java blacks.

The unfermented or green teas include two main varieties,—Chinas and Japans,—also such green teas as may be manufactured in India, Ceylon, and Java.

The semi-fermented (oolong, meaning literally 'black dragon') teas are obtained from Formosa and Foochow.

There may be uninformed people who still believe that black and green teas are grown on different varieties of tea bushes, but tea buyers do not have to be told that the two classes result from different manufacturing processes applied to the same leaf.

HOW BLACK TEA IS MADE

After plucking, if black tea is desired, the leaves are first withered on wire or cloth 'tats' and then rolled, by either hand or machine. The object of the rolling process is to break open the leaf cells in order to liberate the tea juices.

Oxidation (fermentation) starts as soon as the juices exposed by rolling come in contact with the air. The leaf is fermented on tile or cement floors or on zinc, glass, cement, or tiled withering tables. In this process the tea assumes a bright copper colour. Fermentation is said to reduce the astringency of the leaf, thereby developing the colour and flavour of the liquor. The firing process follows. This may be done in baskets over charcoal fires or in tea-firing machines. The final process is sifting and sorting.

HOW GREEN TEA IS MADE

If green tea is desired, fermentation is forestalled by panning or steaming soon after plucking. There is no withering or fermenting in the process of green tea manufacture. In Ceylon and India, the steaming is accomplished in revolving perforated cylinders, while in China, Japan and Formosa, where hand manufacture is more common, the leaves are tossed about by hand in a big iron basin built into a charcoal stove, then taken out steaming hot and rolled by hand, only to be returned to the pan in a few minutes. The steaming and rolling are alternated until the leaves begin to 'crisp,' when they are put upon trays and thoroughly dried over charcoal fires. In Japan much of this work is also done by machinery. The final process is sifting and sorting.

SEMI-FERMENTED TEAS

Semi-fermented or oolong teas have some of the characteristics of both black and green teas. They are allowed to wither in the process of manufacture and partly ferment.

SCENTED TEAS

Chinese tea growers have an adage that 'only common teas require scenting.' Nevertheless, there are many scented teas, highly esteemed in China, that are far from being inferior or inexpensive. Tea that is to be scented is taken hot from the final firing, and poured into a chest, so as to form a layer of two inches from the bottom. A handful, or so, of freshly plucked gardenia, or jasmine flowers are then strewn over the tea. In this way the tea and the flowers are spread in alternate layers until the chest is filled. It is then covered and allowed to stand for twenty-four hours. The correct proportion is three catties (a catty is one and one-third pounds) of flowers to 100 catties of tea. On the succeeding day the tea and flowers, mixed together, are toasted in sieves, about three catties at a time, for a period of one to two hours. The flowers are then sifted out and the tea is ready for packing.

SEASONS AND QUALITIES

The teas that grow and are plucked the year round are those of Southern India, Ceylon, Java, and Sumatra. The best qualities in Southern India are the fermented teas produced in December and January. In Ceylon the finest-quality fermented teas are produced in February, March, April, July, August and September. The fermented teas of Java and Sumatra are at their best in July, August and September.

The seasonal teas are those of northern India, China, Japan and Formosa. Northern India's fermented teas are best when made from the second flushes of July, August and September. In Assam and the Dooars, however, the finest teas are made in November and December. The first pickings from April to October of the North and South China blacks are the best. The best China greens are made in June and July, although they are obtainable from June to December. In Japan the season is from May to October. There are several crops, but the first and second (May and June) are best. In Formosa there are five recognized crops; viz., spring, summer (2), autumn, and winter. The season extends from April to November. The first and second summer-crop teas (June and July) are the finest.

BLACK TEA CHARACTERISTICS

In a brief discussion of trade characteristics, it is to be observed that in Class I (fermented teas) the North China congous (the 'English breakfast' teas) are strong, full bodied, fragrant, and sweet-liquoring, particularly those from the Moning, Ningchow, and Keemun districts. The dry leaves are hard, black, and aromatic. These teas are the 'burgandies' of China teas. The south China red leaf congous are light in the cup, with small, reddish, and tippy leaf. The best-known districts are Pakling, Paklum, and Panyong. These are the 'clarets' of China teas.

Fermented Indias, Ceylons, and Javas are graded according to leaf styles, as follows: Broken Orange Pekoe, Orange Pekoe, Flowery Orange Pekoe, Pekoe one and two, Broken Pekoe, Pekoe Souchong.

INDIAN TEAS

India teas are named after certain districts, the best known being Darjeeling, the finest and the most delicately flavoured; Assam, a hard, flinty, well-made leaf with plenty of golden tip and a strong, pungent, colourful liquor; Travancore, resembling Ceylon tea; and Dooars, a tea much used for blending because of its soft mellow liquor.

Ceylon teas are known chiefly by their garden marks. They are also divided into high-grown and low-grown. Generally speaking, the former are of fine flavour and aroma, while the latter have a common rough liquor and are lacking in flavour. The Ceylon dry leaf is soft, brown and tippy.

Java and Sumatra teas are also known by the names of the gardens or estates producing them. In cup quality they grade very well, being soft and of medium strength. The leaf is black, well made, and tippy.

GREEN TEA CHARACTERISTICS

In Class II (unfermented or green teas), those coming from Japan are prepared in several styles of leaf,—sun-dried, pan-fired (short leaf), basket-fired (longer spider-leg leaf), and porcelain fired (an arbitrary term of no particular significance except to distinguish the leaf which is not rolled or manipulated like pan-fired). Japans are graded in district types as well as for style and cup quality. These are generally recognized in the trade: Extra choicest, choicest, choice, finest, fine, good medium, medium, good common, common. There are also nibs, dust and fannings. Japans are the 'white wines' of teas.

China greens are divided into country greens (Moyunes, Teenkais, Fychows, Soeyans, Wenchows, and local packs), Hoochows, and ping-sueys. All are prepared in the following styles or makes: Gunpowder (extra, first, second, third), rolled round, 'fine shotty' to medium, pea leaf (first and second), a bold, round-rolled leaf; Imperial (first, second, third), large size, round rolled; young hyson (long, rough, bold, and twisted leaf); and hysan (small, well made curly leaf).

The China country greens have rich, clear, and fragrant cup qualities. The Hoochows are flavourless and neutral. The ping-sueys are light coloured and rank in the cup.

The India, Ceylon, and Java greens produce a pungent light liquor and are usually made up into young hyson and hyson styles.

OOLONG TEA CHARACTERISTICS

In Class III (semi-fermented teas) the Formosa oolongs are of fine flavour and very fragrant. They are known by district names, such as Chap Ko Hoon, Paichie, Sinteam, and Chuitngka, and are graded as fancy, choicest, choice, finest, fine, fully superior, superior, fully good, good, good cargo, fair cargo, common. The leaf is greenish brown and tippy. Sometimes Formosas are blended with gunpowders or Japans to make a fixed (green and black) tea.

The Foochow oolong have thin medium flavour and toasty cup qualities. The leaf is long, rough, coarse appearing, and blackish.

KANAN DEVAN PLANTERS' ASSOCIATION

(INCORPORATED)

Proceedings of the Bi-annual General Meeting of the above Association
held in the High Range Club, Munnar, on Saturday,
November 21, 1925, at 3 p.m.

Present

A. J. Wright, Esq. (*Chairman*), Messrs. W. O. Milne, J. S. Hawkins, E. H. Francis, J. M. Bridgman, A. G. MacGregor, C. A. Mackenzie, Wm. Mackenzie, K. M. Ross, J. Gray, A. Yates, H. L. Pinches, G. R. Strachan, J. S. B. Wallace, G. A. Holden, H. C. Boyd, C. K. Olney and H. J. Watson (*Honorary Secretary*), and by Proxy Messrs. R. B. Cullen, W. P. Laird, J. C. Swayne, and W. J. Dixon.

Visitor

J. Paterson, Esq.

The Chairman before proceeding with the business of the Meeting made reference to Mr. W. A. Lee's vacation of the Chairmanship of the Association on his departure to Kenya. He said he felt sure he would meet with the approval of the members in proposing that their appreciation of Mr. Lee's services to the Association be recorded. The proposal was carried by acclamation and the Honorary Secretary was instructed to convey this to Mr. Lee.

The notice calling the Meeting was duly read. The Minutes of the Annual General Meeting held on April 28 last having been printed and circulated were taken as read and confirmed.

The following Agenda was laid on the Table:—

Delegates' Report on U.P.A.S.I. Annual General Meeting.

Labour Controls.

U.P.A.S.I. Sports Club.

Election of Standing Committee under U.P.A.S.I. Labour Rules.

To confirm Committee's decision *re* passages to wives of
U.P.A.S.I. Labour Department Staff.

To confirm Committee's decision *re* election of Trustee on Cochin
Port Trust.

Delegates' Report on U.P.A.S.I. General Meeting at Bangalore, on August 17 to 21, 1925.—This was read.

The Chairman proposed a hearty vote of thanks to the Delegates Mr. J. S. B. Wallace and Mr. H. J. Watson for representing the Association.

Carried unanimously.

Labour Controls.—The Chairman addressed the meeting on the subject.

U. P. A. S. I. Sports Club.—The President of the Club (Mr. Hawkins) addressed the meeting. He was glad to say that 62 members in the District had joined the Club so far and that there was likelihood that this number would be increased. Mr. Pinches had kindly sanctioned the arrangement to send a Rugger Team to Ooty in February. (Applause.) He explained how it would simplify the selection of Tennis Representatives for Ooty week if the High Range Club could hold the Williams Cup event

in January instead of March or April as hitherto. The Sports Secretary of the High Range Club (Mr. Strachan) assured the meeting that this could be done. Mr. Wallace asked in the event of fifteen members representing the District at Rugger, if the U. P. A. S. I. Sports Club would pay expenses. The President replied that if all the Teams were junior (men earning less than Rs. 450 per month the expenses of the journey only (and as cheap a journey as possible) would be met. Mr. Wallace also suggested that the Agenda of Sports Club Meetings be circulated to members. He pointed out how at last U. P. A. S. I. Annual General Meeting at Bangalore, the Sports Club Committee's proposal to raise subscriptions was brought up for confirmation or otherwise; and Delegates were called upon to vote having no knowledge of Sports Club members' wishes in the matter. The President agreed that something should be done and made a note of the suggestion.

Mr. Bridgman proposed a hearty vote of thanks to Mr. Hawkins for all he was doing for the Sports Club, which was carried unanimously.

Election of Standing Committee under U. P. A. S. I. Labour Rules.—Mr. Hawkins proposed and Mr. Francis seconded 'That this Association Committee act as the Standing Labour Committee under U. P. A. S. I. Labour Rules.'

The Chairman at this point explained how this Committee of 9 members was too large to act as a Standing Committee and asked the meeting if it would empower the Committee to appoint a Sub-Committee of 3 from amongst their number to act. He asked if the meeting would also empower such Standing Committee of 3 members to deal with all cases under Inter District and K. D. P. A. Rules in addition to U. P. A. S. I. Rules. The above Resolution as amended on being put to the meeting was duly carried unanimously. The following Resolution proposed by Mr. Milne and seconded by Mr. Bridgman, 'Further that this Sub-Committee be empowered to deal with all cases under Inter District and 'K. D. P. A. Rules', was also carried unanimously.

Passages to wives of U. P. A. S. I. Labour Department Staff.—The Chairman explained how the matter was first brought before the Palamcottah Control Committee and he then asked the Secretary to read from the Minutes of Committee Meeting wherein the Committee had expressed their approval of the granting of such passages. The Labour Director's letter dated October 23 last to Control Members was also read. Mr. Hawkins proposed and Mr. Boyd seconded that the Committee's Resolution be confirmed, viz., 'That in the case of married European employees of the Labour Department going Home on leave, passage money for their wives should be granted on the recommendation of the Control Committee concerned,' which was carried unanimously.

Election of Trustee on Cochin Port Trust.—The Chairman asked the Secretary to explain the situation which was duly done. The meeting unanimously confirmed the Committee's Resolution, viz., 'That the Association's Trustee on the Board of Trustees of the Cochin Port Trust shall be elected by the active members of the Executive Committee by Postal Vote.'

With a vote of thanks to the Chair the meeting terminated.

H. JOHN WATSON,
Honorary Secretary.

ALBERT J. WRIGHT,
Chairman.

DISTRICT NOTES

South Coorg

FORTHCOMING EVENTS

Xmas Day :—Service at Christ Church, Pollibetta, at 10.30 a.m.

New Year's Eve :—There will, be a Fancy Dress (optional), at the Bamboo Club, Pollibetta, at 9.30 p.m. and Supper.

Communications between South Coorg, and Tellicherry, which at the moment are 'disc' as far as crop carts getting down are concerned, will, it is hoped, be opened on Xmas Day. Two temporary bridges are now in the course of construction.

Owing to no carts being able to get through, the planters are experiencing a lot of anxiety in storing their crops, and the past week of rain, has not lessened their worries.

U.P.A.S.I. SPORTS CLUB

Membership

The name of Mr. A. H. Mackie, Superintendent, Labour Department, Srivilliputtur, was inadvertently omitted from the list—published on page 899 of the issue of the December 5—of those who had paid their 1925-6 subscriptions before the end of last month.

DISTRICT REPRESENTATIVES are requested to see that all entries for Competitions and games during Planters' Week are sent in through them from their own districts. These should be sent to the Honorary Secretary of the Club, and not to the U.P.A.S.I. office in Madras, as was the case with two entries last week.

As regards the Southern Districts, Central and South Travancore, Mundakayam and West Coast, for which Mr. H. B. Macpherson is Joint Honorary Secretary to the Club, representatives should please furnish him with a copy of all entries sent in to me.

Admission Tickets to Meet

District representatives are also asked to inform me before the end of January the number they require for distribution to members in their district who will be attending the Meet, including members of member's families.

Notes on Week

'HARPER' TENNIS CUP has arrived and is a very beautiful cup

'VETERANS' CUP. Mr. J. A. Richardson is gladly inaugurating this Competition to commence next Planters' Week. Conditions will be published later.

WOODBRIAR ESTATE,

DEVENASHOLA,

December 12, 1925.

G. W. FULCHER,

Honorary Secretary.

LETTERS TO THE EDITOR

(The 'Planters' Chronicle' is not responsible for the opinion of its correspondents.)

Motor Mileage

THE EDITOR,

'PLANTERS' CHRONICLE,'

MADRAS.

SIR,

In reply to 'A.C.' at a meeting of the M.P.A. mileage of 7 as. and at one of the C.P.A. of 6 as. was resolved as ample. At the two meetings there were 43 members present, and the two Associations represent nearly 34,000 acres belonging to the Upasi. The resolutions were passed *nem-con* after a lengthy discussion, the majority of members own cars and many of them had at different times kept notes of the cost of running. These mileages refer of course to cars of about the Ford standard, not 6 cylinder Buicks or Rolls. But we have still more irreputable evidence. Major Brock has kept very careful records of long distances and time, with a Ford, and it works out to 7-2. as. a mile. And this is with depreciation allowing for paying for the car in two years, under the rules unwisely made by the Upasi for Labour Superintendents. If these were allowed at least 4 years to pay for their cars as they should be, 6 as. seems a net unreasonable, and 7 as. an ample allowance. As regards officials I have no figures, nor do I think it would be becoming in the Upasi to touch the sacred ark. But I thought it was a generally accepted fact that officials do make large sums out of mileage and T.A. This seems almost intended by the rule, the bigger the man, the bigger his mileage allowance. I do think in the nowadays very exceptional case of a man having to hire a car, the full hire should be allowed, as it is actually incurred. But members of the Executive and Control Committees, as long as they call themselves unpaid, should not make money out of mileage. We live in mercenary times. But is there to be no free and willing service to the Planting Community? I fear that soon members of Associations will be demanding expenses for attending meetings.

SOMWARPET,
December 10, 1925.

Yours, etc.,
L. NEWCOME.

The Labour Department

SIR,

At a meeting of the Mysore P.A. on October 26, I notice a report was read from the members of the Control Committee of the Labour Department, Mysore Division. This contained an extract from another report made by the Director of the Labour Department in which he made certain criticisms of one of his officers. It seems to me quite wrong that those criticisms should have received the wide publicity of the *Planters' Chronicle* and I think the members of the Control Committee might very well have treated them as confidential.

Yours, etc.,
J.H.J.

U. P. A. S. C. Badge

SIR,

I understood that it was the LADIES ONLY of the Planting Community who were asked to compete for a Prize by designing badges for the U.P.A.S.C. If the Executive Committee are competing, might I suggest that further time be given before awarding the Prize?

Yours, etc.,
DESIGNER.

BANGALORE—CENTRAL HOTEL, 'The Best in the Station.'

'JUST' (BUT ONLY JUST) VERSE

If you by chance aspire to be
 An fait with all concerning Tea,
 And start by being a Sinna Dorai,
 The bottom rung that leads to glory,
 You'll find the joys are mostly fiction
 And life is one long darned restriction.
 From dawn till dark you'll work alone
 But night is almost all your own
 To toy with any pet temptation
 Within the bounds of the plantation.
 Don't mind the P.D.'s pristine ways
 They're relics of the coffee days,
 When planting wasn't cut and dried,
 And modern methods weren't tried.
 And if by chance he stayed away
 And missed the 1914 fray,
 Perhaps he made the pluckers hop,
 And worshipped, at the shrine of Crop;
 To gain the owners' gratitude
 And help supply the Nation's food;
 Which after all is not so slick
 As being a budding Bolshevik.
 At first it would appear a shame,
 That S.D.'s always get the blame.
 Their sins are mostly of omission
 Affecting managers' commission;
 So there's no cause for feeling hurt
 If P.D.'s treat you just as dirt.
 And don't expect to get applause
 For working in the noble cause.
 The daily round, the common task
 Is yours;—you need not hope to bask
 In sunshine of appreciation;
 That's kept for those of higher station.
 To keep from vegetating you
 Will find all sorts of things to do.
 Example I. Tho' youthful stager
 You're free to ape the Toy Drum Major,—
 To join the mobile Boys' Brigade
 And take the tote hack on parade.
 Example II. A better way
 To keep monotony at bay
 Would be, to save the seals one gets
 With throat inflaming cigarettes.
 The 3rd example—and the last
 If I and II have proved too 'fast,'
 Why,—emulate the perpetrator
 And brighten up the Planters' Paper.

'Crotalaria'

[Let sleeping dogs li-
 -bel themselves. We'll just say
 Sinner Dorais aren't *all*
 Sinna Dorais by day. *Ed.*]

COMMERCIAL AND METEOROLOGICAL

I. The Rupee Exchange for the week ending December 12th, 1925

Bank Selling Demand Draft on London

7th	8th	9th	10th	11th	12th
18 5/32d.	18 5/32d.	18 5/32d.	18 5/32d.	18 5/32d.	18 5/32d.

II. Summary of latest Market Reports and Prices to hand :—

(a) Some of the higher London Prices—

Best prices realized on the London Market			Average prices obtained for tea			
Mark	Pkgs.	Price	District	Week ending November 14, 1925	January 1 to November 14, 1925	January 1 to November 14, 1924
TEA (WEEK ENDING NOVEMBER 14, 1925)				s. d.	s. d.	s. d.
(a) Anamallais—			N. India	1 6-94	1 5-28	1 7-41
Karakundru	66	1 9	S. India	**1 7-11	††1 5-39	††1 6-67
Periakaramalai	101	1 8½	Ceylon...	1 10-19	1 7-85	1 8-44
Mukkottumudi	208	1 6½	Java ...	1 2-52	1 0-70	1 3-14
			Sumatra	1 8-12	1 4-33	1 5-56
			Nyassa-land.	1 4-30	1 0-93	1 4-43
			Total	*1 7-58	†1 5-73	†1 7-35
(b) Central Travancore						
Caradi Goody	95	1 6½				
Pirmed	140	1 6½				
(c) Kanan Devans—						
Kalaar	82	1 9½				
Letchmi	116	1 9½				
Sevenmally	138	1 9				
(d) Nilgiri-Wynaad—						
Daverashola	276	1 8½				
(e) Wynaad—						
Elstone	80	1 4½				
Erramaculla	60	1 3½				

(b) SPECIAL COFFEE CABLE

LONDON, DECEMBER 9, 1925

'A' COFFEE

140s. PER CWT.

MARKET QUIET

** Based on 2,300 packages.

†† " " 166,761 "

‡‡ " " 121,315 "

* Based on 67,457 packages.

† " " 2,794,639 "

‡ " " 2,592,572 "

(c) *Précis of reports on the London Markets received on December 7 and covering the week ending Wednesday, November 18 :—*

(1) *Tea.*—Throughout the week under review there was an active demand for tea of all descriptions ; and tea of all grades continued to realize full prices, while commons to mediums were dearer than during the previous week by $\frac{3}{4}d.$ to $1\frac{1}{4}d.$ per pound. The excess in the London stocks as compared with the stocks on the corresponding dates of last year continues to decrease, but at the end of October was still 32,950,000 pounds. As pointed out in our article of October 24, the figure at the end of August was as much as 38,500,000 pounds.

(2) *Rubber.*—The market was very active and violently fluctuated during the week under review. The closing prices were $\frac{4}{4}d.$ 'Spot' ; $\frac{4}{3}d.$ December delivery ; $\frac{4}{0}\frac{1}{2}d.$ January-March delivery ; $\frac{3}{9}\frac{1}{2}d.$ April-June delivery ; and $\frac{3}{8}d.$, $\frac{2}{8}\frac{3}{4}d.$, and $\frac{2}{2}\frac{3}{4}d.$ respectively for deliveries throughout 1926, 1927, and 1928. The premium on the 'Spot' prices is gradually shortening, and thus helping to solve the problem of forward sales. We gather that the majority of companies have sold forward for 1926 at under 2s., while a small number obtained from 2s. to 2/6s. and still fewer 2/6d. to 3s. The policy generally adopted is, we presume, to sell enough to cover total expenses ; thus making forward sales a kind of insurance and ensuing a clear profit on the sale of the balance of the crop.

(3) *Coffee.*—The market continued stagnant as far as East Indian Coffee is concerned, but good East African found a moderate demand and realized steady prices : Kenyan A. fetching up to 120s. per cwt.

III. Weekly Rainfall Statement

From April 1, 1925, up to and including Saturday, December 12, 1925

Stations are arranged in order approximately south to north and those not in planting districts are shown in small capitals.

Stations	W.	P.	Total	Stations	W.	P.	Total
1. Kalthuritty.	0·91	90·47	91·38	19. Coonoor ...	15·28	54·74	70·02
2. *Tenmalai.	N.R.	96·30	N.R.	20. Kotagiri ...	9·19	48·27	57·46
3. Mundakayam.	0·67	147·35	148·02	21. Ootacamund.	5·06	43·68	48·74
4. *Peermade.	1·91	167·69	169·60	22. Yercaud ...	6·43	43·33	49·76
5. Twyford ...	1·24	199·75	200·99	23. Devala ...	1·83	128·46	130·29
6. V'periyar ...	2·75	77·64	80·39	24. Gudalur ...	1·00	71·75	73·35
7. Kalaar ...	N.R.	207·59	N.R.	25. CALICUT ...	4·85	129·52	134·37
8. Chittuvurrai	5·37	50·43	55·80	26. Kuttiyadi ...	3·17	175·17	178·34
9. BODI'KANUR	4·58	20·58	25·16	27. Vayittiri ...	2·33	157·43	159·76
10. COCHIN ...	1·67	107·39	109·06	28. Manantoddi.	1·29	109·56	110·85
11. *Mooply ...	2·04	111·11	113·15	29. Billigiris ...	4·54	59·55	64·09
12. Mooply Valley	1·64	122·47	124·11	30. *Sidapur ...	N.R.	71·09	N.R.
13. Pachaimalai	1·94	120·92	122·86	31. Pollibetta ...	3·90	81·48	85·38
14. Mudis ...	3·45	197·11	200·56	32. Somwarpett	3·33	80·88	84·21
15. POLLACHIE.	3·79	26·12	29·91	33. Ballupete ...	3·63	71·99	75·62
16. Manjeri ...	2·15	123·61	125·76	34. MANGALORE.	0·60	137·73	138·33
17. Nilambur ...	1·07	100·04	101·11	35. MADRAS ...	8·52	52·47	60·99
18. Naduvattam	1·96	81·15	83·11				

W = During the week.

P = Previously.

N.R. = No return.

* = U.P.A.S.I. Ex. Station.

The Planters' Chronicle

Recognized as the Official Organ of the U. P. A. S. I. (Incorporated)

Managing Editor's Postal Address : POST BOX 155, MADRAS

Do. do. Registered Telegraphic Address : UPASI, Madras

Managing Editor, C. B. COCKAINE,

VOL. XX, NO. 52] SAT., DECEMBER 26, 1925 [PRICE, AS. 8

CONTENTS

	PAGE		PAGE
Editorial Notes ...	935	Planters' Provident Fund ...	946
We and You ...	937	Letter to Editor—	
Frontier Defences ...	938	Motor Mileage... ..	947
District Association Meetings—		Exports of Rubber, Coffee and	
A. Nilgiri-Wynaad ...	939	Tea	948
B. Nilgiri ...	940	Commercial and Meteorolo-	
The Spotting of Crepe ...	942	gical	949

EDITORIAL NOTES

A correspondent kindly draws our attention to the account of an interview with Mr. Eric Rice, the special Commissioner of the *The Overseas League Club*. Overseas League, which recently appeared in *The Madras Mail*. Membership of this League, which now embraces 40,000 members, 90% of whom reside overseas, would, as he points out, ensure exceptional Club facilities in London for Planters on leave at Home. On the occasion of Mr. Rice's last visit to South India some 9 months ago the attention of our readers was drawn to the amenities offered by the organization which he represents, but it would appear opportune to touch on the matter again more especially as the proposal to establish an Empire Planters' Club in Whitehall seems to be hanging fire. Mr. Rice stated that there was ample bed room accommodation at the luxurious club room premises in Park Place; and we understand the entrance fee is only Rs. 10 and the subscription but Rs. 10 a year. Members receive free *Overseas* which is the very excellent official monthly publication of the League. The Local Corresponding Secretary is Major W. S. E. Money, Guindy; to whom enquiries and application for membership should be addressed.

Mr. Arthur Moore contributes to *The Statesman* a rosy account of the conditions of Indian Emigrants in Fiji. Emigration to *Indians in Fiji* this Colony commenced in 1879 when 480 Indian labourers made the passage by the 'Leonidas' in 72 days. By the end of the century

there were 12,000 Indians in Fiji, and owing primarily to the development of the sugar industry the number stands at over 60,000 at the present time. Mr. Moore states that Fiji Indians differ from Indians proper as widely as Canadians and Australians differ from the English; and, to give point to his statement, instances the virtual disappearance of the observance of caste. Brahmins apparently intermarry freely with the lower castes, and widows remarry as a matter of course.

Akron, Ohio State, has seen great changes since December 31, 1870, when Dr. Benjamin Franklin Goodrich obtained a loan of \$1,000 each from 19 Akron business men and erected the first rubber plant west of the Alleghany range. The site of that tiny factory building—which at first turned out only fire-hose and subsequently mechanical goods, pneumatic bicycle tyres, and solid carriage tyres—is still occupied by a part of the B. F. Goodrich Company's gigantic Plant. There are 24 other rubber factories in Akron to-day. These, together with the Goodrich Plant, have a capital of \$284,000,000; cover 500 acres; employ 50,000 hands; and turn out 30,000 different varieties of rubber goods which realized no less than \$387,825,922 in 1924. *Inter alia* 110,000 tyres; 500,000 pairs of rubber heels; 350 miles of rubber bands; 20 miles of rubber hose; and 75 miles of rubber belting are on an average produced in this city every day.

Pari passu with increased releases under the Rubber Restriction Scheme, the labour shortage in Malaya becomes more acute. The situation is in no way eased by the huge Admiralty undertaking at Singapore where the coolies working on the naval base are being paid 70 Straits Cents (about 1s. 8d.) a day. Envious eyes are naturally turned to Ceylon which has received from India more than twice as many labourers as Malaya during the past six years. Still worse from the Malayan point of view is the fact that in the same period the coolie departures from, exceeded the arrivals in, Malaya by over 5,000; whereas the arrivals in, exceeded the departures from, Ceylon by just on a quarter of a million souls. The figures are given below:—

Year	STRAITS		CEYLON	
	Arrivals	Departures	Arrivals	Departures
1920	66,552	48,292	37,848	27,581
1921	14,741	53,927	22,079	23,512
1922	33,976	39,544	77,636	37,629
1923	21,577	36,456	89,859	51,762
1924	38,299	32,476	153,989	56,118
1925*	54,597	24,244	106,478	46,674
Total ...	229,742	234,939	487,889	243,276

* To end of October.

WE AND YOU

The United Planters' Association of Southern India in Annual General Meeting assembled on Thursday, August 16, 1906, resolved on the proposal of Mr. J. A. Harris, who was seconded by the Honourable Mr. H. P. Hodgson, 'that a monthly circular containing information on matters in which the Association is interested and concerned be issued and circulated to every member of each subscribing Association'; and in the following month *The Planters' Chronicle*, Volume I, No. 1 for September, 1906, duly appeared. That Volume ended with the January 1907 number; and similarly Volumes II, III, and IV concluded respectively with the numbers for January 1908, 1909, and 1910. Weekly issues began with Volume V which contained the numbers from January 22 to December 31, 1910 inclusive, and thus fell into line with the calendar year.

The Paper was edited at Bangalore until Mr. Fletcher Norton resigned the Editorship at the end of 1918. From January 1919 until June 1925 the Paper was edited at Coimbatore; at first by Mr. Waddington assisted by Mr. Edwin Vincent, but soon afterwards by Mr. Edwin Vincent alone. This gentleman issued his last number on June 27, 1925, having edited *The Chronicle* continuously from the date of his appointment; with the exception of a break from April to December 1922, when Major C. H. Brock and Mr. H. Waddington assumed the editorship from respectively April to August, and September to the end of the year. *The Daily Post* of Bangalore printed the Paper from its inception until the end of March 1922: its Proprietor Mr. T. M. Babington having at the end of 1918 undertaken to relieve the Editor of proof-reading on the latter's transfer to the new Upasi Head-quarters at Coimbatore. From April 1922 to June 1925 *The Chronicle* was both edited and printed at Coimbatore. At the beginning of July 1925 the Editorial Offices were, by transfer from Coimbatore to Madras, housed once again in the Upasi Head-quarters which had already made the move thirteen months before. From that date too the printing has been carried out by one of the leading establishments in Madras. This is in brief the history of *The Chronicle* during the period covered by the twenty annual volumes which have been issued to date.

This Fifty-second number of the Twentieth Volume sees an Old Year out and a New Year in. In the short space of six months we naturally have only met a few of our readers, but an Editor has the privilege of sending seasonal greetings to unknown as well as known friends. This privilege we unblushingly claim, and wish all connected with the planting industry of Southern India a jolly Christmastide and a prosperous New Year.

Ex-officio felicitations however, are apt to be taken more or less as a matter of form; and we are therefore glad to have been commissioned by the Secretary of the U.P.A.S.I.—whom many readers have doubtless recognized as the *Machina super decum* of *The Chronicle* on several occasions during the past six months—to say that he cordially hopes that all Readers in general and his innumerable South Indian friends in particular will spend a pleasant holiday season and have the best of good fortune throughout 1926.

We are sincerely glad that such wishes have not, as on some less happy occasions, to be given with a certain amount of reserve. Rubber has risen from 1/5d. in January to 4/7d. the week before last; and, though it has fallen since then by about 8d., many authorities think that it *recule pour mieux sauter*; and none, so far as we know, foresee anything but satisfactorily high prices in 1926, and indeed for several successive years. Tea has successfully weathered the crisis of last August, and there is every

reason to anticipate that the season will close under more favourable auspices than obtained twelve months before. Coffee is at any rate firm enough to enable producers to refuse sales at indifferent prices : a state of affairs which we think augurs well for the future, and warrants the assumption that even those whose eggs are all in the coffee basket will not have to forego their liqueur.

FRONTIER DEFENCES

BY

DR. T. K. GOVINDAN NAIR

This is nothing about Afridis and Zaka-kals, nor the military operations and out-posts beyond Peshawar, but is about some inroads of Epidemic Diseases into the Planting Districts of Wynaad and Nilgiri-Wynaad from the frontier province of Mysore. Within recent times, i.e., 1924-25, four such Epidemics happened in the District, viz., the Epidemic of Relapsing Fever in Mango Range and Manantoddy Groups during December 1924 to March 1925, the Anthrax outbreak on Wentworth in June, the Small-pox infection in Deversholla in August, and of Pneumonic Plague in Meppadi and Achoor in October. Of these, the last three infections were traced to Mysore ; and in the case of the Relapsing Fever, the trouble came from Salem District. Surely, a series of inroads of Epidemic Diseases like these into the midst of an extensive business organization such as the Planting Industry with all its population of labour force, apart from its significance to Public Health, affects industrial interests to some considerable extent.

Now, it is too much to expect the Health Department of the infected localities to mind the interests of the community beyond their limits, but they can certainly foster their own interests without at the same time being a nuisance to their neighbours. If the rules and restrictions relating to Epidemic Diseases are faithfully carried out, the chances of infection spreading beyond the area of its origin are very limited. Maintenance of the safety of any community in the presence of an Epidemic is of course its primary concern, but it is equally its responsibility not to endanger the health of its neighbourhood and beyond, by any acts of omission calculated to spread the infection outside the limits of its origin. This is probably an idealist's vision of the sublime, but certainly its realization can very easily be anything better than the ridiculous.

As things are, however, we have very little security against the dangers of other people's omissions, and far more successful than lecturing to them about their duties and obligations will be to organize a system of defence against such contingencies. The U. P. A. S. I. can help us a lot in this matter. They have their agencies widely established all over South India, and a system of notification by them of the prevalence of any Epidemic Diseases within any recruiting area will put the Estates concerned on their guard. When, however, the exigencies of labour conditions on estates require recruiting being carried on in the face of such set-backs, there is still the means of segregating the arrivals from such places in a safe place on the Estate for a period covering the incubation time of that particular infection. If the U. P. A. S. I. is unable to gather such information from their local agents, they have yet the means of obtaining such information from the Director of Public Health of the Provinces, who will readily give the information as they do to the press every week. [N.B.—*The Planters' Chronicle* does not as a rule reproduce information appearing in the daily Press which presumably its Readers see. *Ed.*] To establish quarantine stations at outposts and entrances is an elaborate scheme, which, though successfully operated in more extensive planting areas such as the F.M.S., is beyond the scope of this District.

DISTRICT ASSOCIATION MEETINGS

A. NILGIRI-WYNAAD PLANTERS' ASSOCIATION

(INCORPORATED)

Proceedings of a General Meeting held at Gudalur on Friday, December 4, 1925

Present

Messrs. P. A. Naylor (*Chairman*), W. K. Baillie, G. W. Fulcher, R. Fowke, J. C. Nicolls, R. M. Nicolls, P. W. Davis, J. C. Blackham, J. Aird and D. Mackintosh (*Honorary Secretary*).

The Minutes of the last meeting were read and confirmed.

Roads and Communications.—It was the opinion of the meeting that the Gudalur-Nellacotta and Nellacotta-Sultans Battery Road should receive more attention. The Honorary Secretary was instructed to write to the President of the Nilgiri District Board and request that this subject be put on the Agenda for the next extraordinary meeting of the District Board Members; also that the Honorary Secretary ask the Wynaad Planters' Association for their help in pressing for the proper maintenance of the Malabar section of this road.

Coimbatore Control Committee.—Payment of Head Money (Commission) to Estate Gang coolies.

This matter was fully discussed and the Honorary Secretary was instructed to write and find out from the Annamallai Planters' Association what rate or rates of Commission they are going to pay such labour and especially to find out if they are going to differentiate between advanced and unadvanced coolies in this respect. The Honorary Secretary was also instructed to write to the Director of the Labour Department; and find out, if possible, the results of the 'Propaganda Work' in the above division.

Mysore Labour Control.—Our Delegate (Mr. J. Aird) was duly instructed on the various subjects brought up under this heading which will come up for discussion at the next Control Committee Meeting to be held at Mysore on the 8th instant.

U. P. A. S. I. Sports Club.—The Honorary Secretary was instructed to pay the Annual Subscription of Rs. 50.

Subscription of Personal Members to District Association

The following Resolution proposed by Mr. G. W. Fulcher, and seconded by Mr. D. Mackintosh was carried unanimously.

That the Articles of Association be altered as follows :—

That in Clause 7 the subscription of Personal Members be Rs. 5 per annum, instead of Rs. 12 as at present.

Carver Cup.—Mr. G. W. Fulcher (Honorary Secretary of the Sports Club) announced that the Kanan Devans had challenged the Annamallais to a Rugby match to be held at or near Ooty, during Planters' Week, and proposed that our Honorary Secretary do write and find out whether the Wynaad Planters' Association would join our Association in getting together a Team to contest the Kanan Devans and Annamallais.

The suggestion was carried unanimously.

Cochin Port Trust.—The Honorary Secretary read Mr. Waddington's letter of October 12 last and the meeting was of the opinion that 'The Association Trustee on the Board of Trustees of the Cochin Port Trust' should be elected by the active members of the Executive Committee, by Postal votes.

Accelerated Mail Service from Bombay.—Our Association are very strongly in favour of the proposed acceleration of the Mails from Bombay.

D. MACKINTOSH,

Honorary Secretary.

P. A. NAYLOR,

Chairman.

B. NILGIRI PLANTERS' ASSOCIATION

(INCORPORATED)

Proceedings of a Quarterly General Meeting held in the Coonoor Club on Thursday, November 19, 1925.

Present

A. K. Weld Downing (*Chairman*), Messrs. W. E. Forbes, W. A. Cherry, R. J. Laya, J. Backhouse, P. Beaver, A. W. Hearn, N. J. Stanes, F. Clayton Daubeney, C. R. Clayton Daubeney, R. L. Stuart, L. F. Lake, H. S. Cameron, D. Elkington, C. W. Hayne (*Honorary Secretary*), W. G. Dyson (*Honorary Member*).

Visitors

W. W. Hurst, J. N. Smith, J. Beaver.

PROCEEDINGS

Before opening the meeting the Chairman referred to the sad loss sustained by Mr. Reed of Marvahulla Estate by the death of his mother, and a resolution expressing the sympathy of the Association was passed, all standing.

The notice calling the meeting was read. The minutes of the last meeting were taken as read and confirmed.

The Delegate's Report.—The delegate's report of the U. P. A. S. I. was read. Delegate's expenses to Bangalore were passed.

Tea Market in South India.—Letter from the Madras Company re opening of a tea market in Madras was read, also letters in reply to the Honorary Secretary from three brokers in Colombo, as to their views on this matter were read. On discussion it was decided to let the matter rest as it was thought the situation was not developed enough to take any steps in the matter.

Cochin Port Trust.—Letter from the Secretary, U.P.A.S.I., together with another suggesting that the Association's Trustee on the Board of Trustees of the Cochin Port Trust be elected by the Active Members of the Executive Committee by Postal Vote be passed. *Agreed.*

Telephone Connections.—Further details were given by the Chairman regarding the matter, pointing out the utility of an installation. A list has been made and sent to the authorities of those estates who wish to be connected up with the Coonoor Exchange.

Personal Membership.—This matter was brought up at the Annual General Meeting of the U.P.A.S.I. at Bangalore. It was decided to refer back to district associations. On discussion the following resolution proposed by Mr. W. E. Forbes, and seconded by Mr. C. W. Hayne, was

passed : ' That any assistant with a salary of Rs. 350 or less, subscribe as a personal member a subscription of Rs. 5 per annum. All others Rs. 15 per annum. '

U.P.A.S.I. Sports Club.—Mr. C. R. Clayton Daubeney as representative of the Association addressed the meeting. On discussion it was proposed by Mr. C. R. Clayton Daubeney and seconded by W. A. Cherry : ' That district representatives be given due notice of all meetings of the U.P.A.S.I. Sports Club to enable them to attend such. ' *Carried.* Further Mr. Daubeney suggested another badge for the U. P. A. S. I. Sports Club. The Honorary Secretary was requested to send this to the Secretary, U.P.A.S.I. Sports Club.

1. *Miscellaneous Correspondence.*—Read letter from Superintendent of Nonsuch Estate *re* Lawley Hospital and sending in of bills to Superintendents of estates. The following resolution was proposed by Mr. D. Elkington and seconded by Mr. W. E. Forbes: ' That the Civil Surgeon be asked to give orders that no estate cooly be admitted to Hospital without a letter from the Superintendent and in the case of admittance to advise the estate and also to advise the date of discharge. '

2. Read letter from the Secretary, U. P. A. S. I., *re* accelerated train service to and from Bombay. This Association agrees with the proposals put to the Executive Committee.

3. Read letter from the Secretary, Nilgiri-Wynaad Planters' Association, asking if the District Board Members of this Association would support them in certain proposals made to deal more effectively with roads, medical, and sanitary matters. The Honorary Secretary was requested to write to the Honorary Secretary, Nilgiri-Wynaad Planters' Association, that this Association was agreeable to their proposals and would give it a trial.

4. Read letter from Director, Labour Department, *re* passages to wives of European employees asking opinion of this Association. Proposed by Mr. N. J. Stanes and seconded by Mr. C. R. Clayton Daubebey: ' That this Association is not interested in the matter and is not therefore in favour of granting passages. ' *Carried.*

5. Read letter from *Planters' Journal and Agriculturist* asking permission to publish proceedings of meetings of this Association in their journal. Agreed to grant their request.

6. Read and recorded letter from Director of Labour Department *re* circular letter and census forms sent to each estate supporting Labour Department.

Synthetic Farnyard Manure.—Under this head Mr. Hurst addressed the meeting giving details and advantages of this manure and how to prepare same for applying to crops.

Just before closing the meeting the Chairman brought up the question of the Kallar Bridge on the Mettapalyam Coonoor Ghat, and the following resolution was proposed from the Chair. That this Association wish to know definitely when the Kallar Bridge will be open for traffic. *Carried.*

With a vote of thanks to the Chairman and to Mr. Hurst for kindly attending the meeting and to the Secretary of the Coonoor Club for the use the room, the meeting terminated.

C. W. HAYNE,
Honorary Secretary.

A. K. WELD DOWNING,
Chairman.

THE SPOTTING OF CREPE RUBBER

BY

W. BROWN, M.A., D.Sc.

(Concluded from page 884, issue of November 28)

As a previous experiment had shown that acetone extraction diminishes the water content, eight of the acetone treated strips were put back in the 50° oven for a further four days' soaking in water, at the end of which time half of the strips were used for determinations of water content and the remainder tested for spotting in the usual way, with the following results.

TABLE III

Treatment.	Water Content (Av. of 4 determinations.)	Degree of spotting.
Not treated with acetone	42.9 per cent.	Intense.
Extracted with acetone and not subsequently heated.	23.5 per cent.	Slight.
Extracted with acetone, and heated in water at 50° for a further four days.	30.9 per cent.	Slight.

A water content of 20 per cent is sufficient to allow of intense spotting so that it is clear that extraction with acetone diminishes both capacity of absorbing water and also of spotting of the rubber. In another experiment the acetone extraction was carried out on the dry material, and it was found on subsequent soaking in water in the usual way that the acetone extracted rubber took up less water (25.7 per cent as against 32.6 per cent) and showed only feeble spotting reactions as compared with the intense colour developed by the untreated material. The acetone extract was evaporated to dryness, the residue suspended in water, solidified by the addition of agar and the growth of the *Fusarium* on this medium examined, cultures on plain agar serving as controls. From inspection of the resulting cultures it was clear that the acetone extract contained an appreciable amount of food material. The withdrawal of mere food material from the rubber by the acetone extraction was not however the cause of the reduced spotting capacity of the extracted rubber, as it was shown that the latter was incapable of strong spotting even after soaking in a complete nutrient.

These results therefore indicate that the acetone extractable constituents of rubber play an important part in the phenomenon of spotting.

From time to time a peculiar effect was observed which probably has some relation to the foregoing. As a rule, the water in which the rubber strips are kept for purposes of swelling remains perfectly clear, but in some cases it shows a white turbidity. It was at first thought that the latter was due to the presence of bacteria, but microscopic examination showed that it was amorphous, and cultural examinations proved that these turbid tubes were quite sterile. The interesting point is that the material causing the turbidity is soluble in acetone and the strips which on soaking give a turbid liquid show a definitely greater capacity for spotting than ones which give a clear liquid on similar treatment. The analogy with the results described above in connection with acetone extraction is obvious.

Methods of Preventing Spotting.

Temperature.—The behaviour of these spotting fungi towards temperature indicates a simple method of control. Experiments have been carried out along the following lines.

A series of strips was prepared for spotting in the usual way and after inoculation with *Fusarium*, they were disposed in a series of incubators at various temperatures, 20°, 25°, 30°, 35°, 40°. Most rapid and intense spotting took place at 30°, at which temperature quite distinct discolouration was visible within 24 hours from the time of inoculation. At 25° the rate of discolouration was only a little more than half as fast as that at 30° and at 20° it was still less. At 35° discolouration appeared very slowly and unless special precautions were taken to prevent the evaporation of water, the strips dried out at this temperature before any appreciable spotting took place. At 40° no spotting occurred at all.

A parallel series of growth experiments showed that the optimum for growth was round about 30° as the following measurements of colony diameter at a series of temperatures indicates :—

	25°	30°	35°	40°
Diameter after 3 days	2.3 cm.	3.°	1.0	0

The *maximum* temperature for germination in the case of both the *Fusarium* and the *Penicillium* is in the neighbourhood of 37°. At 38° neither fungus germinates. After two days' exposure to 38° the spores of both fungi germinate quite freely when transferred to the 25° incubator. After four days' exposure at 38°, the spores of the *Penicillium* will still germinate when transferred to 25°, whereas the spores of the *Fusarium* when so treated are found to be dead.

A temperature of 30° C (86° F) appears to be about the average in the rubber growing districts, and in the case at least of the two spotting fungi dealt with in this paper, that temperature is near the optimum for spotting. A comparatively small rise in temperature (5° C or 9° F) produces conditions highly retardatory to spotting, and this quite apart from the further effect which such a rise would have in accelerating drying. It is unlikely that other spotting fungi not isolated by the writer will prove to have higher temperature cardinal points than the two investigated here, and thus it would seem that a comparatively slight rise of temperature in the drying sheds would have a very beneficial effect as regards the occurrence of spotting. To raise the temperature of the drying sheds above 37° or thereby would be unnecessary and also dangerous as it was found that sheets dried off at 45° were definitely tacky and showed a slight general yellow colour throughout.

*Antiseptics.*¹

Tests were carried out with *paranitrophenol*² which appears to be the antiseptic which has found most favour in the East. The strips which were prepared in the usual way were soaked overnight in a 0.2 per cent solution of ammonium chloride in distilled water to which various amounts of P.N.P. were added. They were then inoculated with the *Fusarium*. A

¹ Though not usually described as an antiseptic, sodium carbonate in dilute solution effectively checks spotting. A concentration of 0.5 per cent—0.1 per cent is sufficient for this purpose. It is probable however that the alkali left in the rubber after drying would cause deleterious effects.

² Plantefol tested the fungicidal value of phenol and its various nitro-derivatives on the common black mould, *Aspergillus niger*. He found that all the nitro-derivatives are more toxic than phenol itself. Of the mono-nitro derivatives the ortho-compound was the least toxic, the meta-intermediate, and the para- the most toxic. The 1:2:4. dinitro phenol is stated to be much more toxic than any of the mono-derivatives. Trinitro-phenol (picric acid) was found to be comparable in antiseptic power to the mono-compounds. Dinitro-phenol was stated to be about 10 times more toxic than paranitrophenol.

concentration of 0.005 per cent was found to prevent spotting almost completely under the above conditions. When a trace of glucose was added to stimulate spore germination it was found that some spotting took place, but in all cases a concentration of 0.01 per cent P.N.P. completely inhibited spotting. Parallel experiments showed that this concentration inhibited germination of the spores. The above statements also apply to the *Penicillium* both as regards spotting and spore germination. In respect of antiseptic power, P.N.P. appeared to be about ten times more active than phenol itself.

An important point in connection with the use of P.N.P. as an antiseptic concerns the form in which this substance is presented to the fungus. P.N.P. is a weak acid and is similar to many organic antiseptics of acidic nature (e.g. acetic acid, phenol itself) in that it is more toxic to fungi in the acid form than in the equivalent concentration of any of its salts. When a weak solution of P.N.P. is made up in hard water a large proportion of the antiseptic or it may be all of it, is transformed into the salt form which is much less toxic to fungi. This is the explanation of the fact that a weak solution of P.N.P. in distilled water is practically colourless whereas a similar solution in hard tap water is coloured a pronounced yellow. In the former case the solution contains the colourless undissociated acid, in the latter the coloured dissociated salt (P.N.P. is in fact an indicator). The following experiment will serve to illustrate the above statements. A series of concentrations—0.01 per cent, 0.005 per cent, 0.002 per cent and 0.001 per cent—of P.N.P. were made up.

A, in distilled water.

B, in tap water (hard).

C, also in tap water but the various solutions were just decolourized by the addition of the requisite number of drops of dilute sulphuric acid.

On testing the antiseptic power of these various solutions on *Fusarium* spores, the following germination results were obtained:—

Series A. No germination in 0.01 per cent and 0.005 per cent P.N.P. were obtained; good germination in 0.02 per cent and 0.001 per cent.

Series B. Strong germination at all concentrations of P.N.P.

Series C. Identical with Series A.

This suggested therefore that if a P.N.P. bath is to be used for the purpose of preventing spotting, care should be taken that the solution of the antiseptic is colourless. If, through the use of hard water, it is distinctly coloured, it can be readily decolourized by addition of a few drops of an acid. A preferable method would, of course, be to use rain water for the preparation of the P.N.P. solution.¹

¹ Pinching (Bull. Rubber Growers' Assoc., 1924, Vol. 6, pp. 545-9) found that soaking the crepe in a .15 per cent solution of P.N.P. was effective in preventing spotting. This concentration in the present writer's experience is much too high, and there is no reason why, if the directions given here are attended to, a solution of .005 per cent should not be quite effective. Pinching speaks of the impurity of the commercial product and of the difficulty of getting it into solution. The writer has experienced no such difficulty. The antiseptic is first dissolved in a small quantity of boiling water in which it dissolves quite readily, and then diluted to the required degree. A strong and yellow solution certainly does discolour the rubber, but in the weak colourless form in which the antiseptic should be used no such effect takes place. The spots formed in the crepe when the P.N.P. is added to the latex as described by Pinching are probably due to the presence of undissolved particles of the antiseptic.

Reduction of Water Content.—A striking method of reducing the susceptibility to spotting of rubber sheets which have been soaked out in water is simply to dry the surface. In the laboratory this was effected by placing the strips between blotting paper and giving them a hard rolling with a photographic squeegee. The effect of this is to lower the water content percentage by about 5. These rolled strips on inoculation show a comparatively slight tendency to spotting. Even when the water content of the strips before pressing is say 35 per cent and therefore that of the pressed strips about 30 per cent the latter show only a slight tendency to spotting, whereas unpressed strips having a water content of only 20 per cent show spotting with great readiness. This fact indicates that the process of squeezing affects only the surface layers of the rubber. One would anticipate therefore that this method of reducing the tendency to spotting would only apply in cases where, as in the present experiments, the fungal spores are placed on the surface of the rubber. In other words this method, even if adaptable to work on a large scale, would only act as a check to fungal spores which happened to alight on the rubber subsequently to coagulation, and would be useless as against spores already contained within the coagulum. Experiment showed that this was the case. A quantity of latex (preserved in ammonia) was procured, and after removal of the bulk of the ammonia, spores of the *Fusarium* were incorporated in the latex which was then coagulated and rolled out while still soft. When these sheets were kept in a saturated atmosphere, colour developed (of a more bluish tinge than usual in these experiments) in a few days, and in this case drying of the surface of the sheets in the manner described above had no noticeable effect on the rate or intensity of spotting.

Conclusion.

The following are the main points of practical interest brought out in the present report :—

The rate and intensity of spotting increase with the water content of the rubber. The early stages of drying, while the water content is still high, should thus be hurried through. Nevertheless it should be remembered that the matter is one of degree and that even with a low water content, some spotting will take place if sufficient time is allowed.

It is practically impossible to wash out all traces of food material from crepe rubber. More thorough washing of the crepe will therefore not prevent spotting.

The temperature at which the two fungi investigated in the present paper are inhibited in their growth is only a few degrees higher than that at which they show their maximum spotting capacity. A rise of a few degrees in the temperature of the drying sheds would effectively prevent spotting. This is over and above the effect of an increased temperature in accelerating the drying process.

A concentration of Paranitrophenol of 0.01 per cent inhibits the germination of the two fungi tested. This concentration therefore absolutely prevents spotting under conditions most favourable for it. It is probable that a lower concentration of the antiseptic would suffice under the conditions prevailing in the drying shed.

In order to be effective in the above concentration the P.N.P. must be presented in neutral or faintly acid solution, that is, the solution of the antiseptic should be colourless or nearly so.

GENERAL PROVIDENT FUND FOR PLANTERS

(Continued from page 878, issue of November 28)

4. **PROCEEDINGS OF TRUSTEES.**—Meetings of the Trustees shall be held in Malaya as required, but at least two meetings shall be held in every calendar year. The Chairman may at any time summon a meeting of the Trustees, and, if any two Trustees in writing call upon the Chairman to summon a meeting of Trustees, he shall thereupon do so. It shall be competent for Trustees to be represented by proxy (whether a Trustee or not) at any meeting at which they are unable to be present personally. Three of the Trustees, at least two of whom shall be personally present shall constitute a quorum. Questions arising at a meeting of Trustees shall be decided by a majority of votes, and, in case of equality of votes, the Chairman, or in his absence, the Trustee presiding at the meeting, shall have a casting vote. A resolution signed by all the Trustees shall have the same effect as a resolution passed at a meeting of Trustees. The proceedings at meetings of, and all resolutions passed by, the Trustees shall be duly entered in a minute book to be kept at the registered office of the Fund.

5. **ACCOUNTS.**—The Trustees shall cause full and true accounts of the Fund to be kept. The Books shall be kept at such place as the Trustees may direct.

6. **SECRETARY.**—The Secretary shall be a person resident in Malaya, and he shall be appointed and be removable by the Trustees. He shall, under the direction of the Trustees, have charge of the books and accounts of the Fund, conduct its correspondence and perform any other duties incidental to the management of the Fund or the Trustees may, if they think fit, employ Chartered Accountants for the purposes of this Clause. He or they shall receive such remuneration payable out of the Fund as the Trustees direct.

7. **BANKERS.**—The Trustees shall appoint the Bankers to the Fund and shall make such regulations as they think fit for the conduct of the banking operations of the Fund.

8. **FINANCIAL YEAR AND ANNUAL REPORT.**—The financial year shall terminate on the 31st December in each year. As soon as possible thereafter the Trustees shall issue a Report of the Fund together with a balance-sheet and income and expenditure account of the Fund to the 31st December, and a list of the investments of the Fund, showing their cost price and value at that date. A copy of the Report and audited accounts shall be sent to each contributor to the Fund.

9. **AUDITORS.**—The Auditors to the Fund shall be appointed by the Association who shall fix their remuneration, which shall be payable out of the Fund, and their tenure of office. The Auditors shall examine the accounts of the Fund and certify the correctness of the annual balance-sheet, list of investments and income and expenditure account.

10. **TRUSTEES INDEMNIFIED.**—Each Trustee shall be indemnified by the Fund against all proceedings, costs and expenses occasioned by any claim in connection with the Fund, provided that such claim does not arise from wilful negligence or fraud on his part.

11. **MEMBERSHIP QUALIFICATION.**—The persons who shall be eligible for membership of the Fund are the managers and all other members of the staff of plantations for growing Rubber, Coconuts and other tropical products employed in Malaya whose fixed salary as hereinafter defined shall not be less than \$225 per month. No person eligible for membership shall be entitled to become a Member unless his employer has agreed to contribute the employer's contribution as hereinafter defined. Persons applying for membership shall sign such application form as the Trustees may approve.

12. **CONTRIBUTIONS.**—Subject to any special provisions in the rules for the time being in force, ordinary annual contributions shall be at the rate of 10 per cent of the Member's salary, and shall be provided in equal shares by the Member and his Employer. The Members' contributions under this Rule are referred to as Members' ordinary contributions.

The following provisions relate to Members' ordinary contributions, viz. :—

(a) They shall be at the rate of 5 per cent per annum on the *fixed salary* (including furlough salary) of the Member.

(b) They shall not be calculated on allowances, share of profits, commission in lieu of salary nor on any temporary increase of salary or other occasional receipts.

(c) They shall be deducted by the Employer from the Members' salary at the time of payment and be paid over by the former to the Fund on the last day of the month in which deducted.

(To be continued).

LETTER TO THE EDITOR

Motor Mileage

THE EDITOR,

'PLANTERS' CHRONICLE',

MADRAS.

SIR,

Under this heading, in your issue of the 5th instant, I see 'A.C.' asks for figures on which the Coorg Planters' Association bases its opinion on what is an 'ample allowance' for running costs of an ordinary Motor Car.

As a member of the above Association, though absent from the country when the resolution in question was passed, I am glad to be able to give accurate figures of running costs of an Overland 91, over a period of one year.

The distance covered was 8,500 miles, composed mostly of short runs. The cost including third party insurance premium, driver's pay, at Rs. 62 per mensem, repairs, tyres and all charges, works out at annas 4·7 17/20 pies per mile.

I could supplement these figures with those of 30 cwt. motor lorries which came within the car rate.

Yours, etc.,

PERCY G. TIPPING.

POLIBETTA, S. COORG,

December 16, 1925.

EXPORTS OF TEA, COFFEE & RUBBER FROM SOUTH INDIAN PORTS DURING OCTOBER, 1925

From	To ports in India	Ceylon	United Kingdom	Europe (excluding United Kingdom)	Asia (excluding India and Ceylon)	Africa	America	Australia
Tea—								
Madras	...	...	189,303	200	...	...	...	...
Calicut	28,908	75,473	965,727	...	...	...	...	...
Cochin	4,550	6,983	666,052	50	...	450	25,193	...
Tellicherry	...	...	105,203	...	...	...	...	...
Tuticorin	...	265,418	491,729	...	...	...	...	1,800
Alleppey	...	23,722	74,562	...	...	...	...	...
Total	33,458	371,596	2,492,576	250	...	450	25,193	1,850
Previously	193,668	1,968,854	18,087,885	1,058,021	6,600	2,520	29,660	...
Total lbs. since 1-4-25.	227,126	2,340,450	20,580,461	1,058,271	6,600	2,970	54,853	1,850
Coffee—								
Madras	296	...	...	...	1	...	...	38
Mangalore	215	...	1,206	9,327	167	...	...	...
Tellicherry	...	...	49	279	...	...	...	...
Bombay	...	...	...	5	119	...	...	...
Total	511	...	1,255	9,611	287	...	...	38
Previously	16,045	34	110,985	99,614	29,417	1	503	7,794
Total cwts. since 1-1-25.	16,556	34	112,240	109,225	29,704	1	503	7,832
Rubber—								
Calicut	...	134,854	100,249	...	...	...	...	...
Cochin	509	209,530	426,923	35,910	...	...	156,790	...
Mangalore	...	24,964	...	...	...	...	...	...
Tellicherry	...	...	18,690	...	...	...	...	...
Tuticorin	...	95,639	...	...	...	...	...	...
Alleppey	192	174,007	18,380	11,639	...	...	...	...
Total	701	638,994	564,242	47,549	...	...	156,790	...
Previously	2,469	4,066,330	3,766,279	110,800	1,463	14,494	1,261,946	...
Total lbs. since 1-1-25.	3,170	4,705,324	4,330,521	158,349	1,463	14,494	1,418,736	...

COMMERCIAL AND METEOROLOGICAL

I. The Rupee Exchange for the week ending December 19th, 1925

Bank Selling Demand Draft on London

14th	15th	16th	17th	18th	19th
18 5/32d.	18 5/32d.	18 5/32d.	18 5/32d.	18 5/32d.	18 5/32d.

II. Summary of latest Market Reports and Prices to hand :—

(a) Some of the higher London Prices—

Best prices realized on the London Market			Average prices obtained for tea			
Mark	Pkgs.	Price	District	Week ending November 20, 1925	January 1 to November 20, 1925	January 1 to November 20, 1924
TEA (WEEKS ENDING NOVEMBER 20 AND 27, 1925)				s. d.	s. d.	s. d.
(a) <i>Anamallais</i> —			N. India	1 7-80	1 5-36	1 7-54
Sholayar ...	125	1 9½	S. India	a1 7-87	b1 5-41	c1 6-76
High Forest ...	66	1 9	Ceylon...	1 10-65	1 7-90	1 8-49
Karamalai ...	266	1 8½	Java ...	1 3-93	1 0-73	1 3-18
(b) <i>Central Travancore</i>			Sumatra.	Nil	1 4-33	1 5-72
Granby ...	160	1 8½	Nyassa-			
Pirmed ...	184	1 7½	land.	1 4-44	1 0-95	1 4-43
Savarimallai ...	132	1 6½	Total	1 8-48	1 5-79	1 7-43
(c) <i>Coorg</i> —						
Glen Lorna ...	108	1 6½	District	Week ending November 27, 1925	January 1 to November 27, 1925	January 1 to November 27, 1924
(d) <i>Kanan Devans</i> —				s. d.	s. d.	s. d.
Chockanad ...	32	2 0½	N. India.	1 8-27	1 5-44	1 7-68
Chundavurrai ...	111	1 11	S. India.	**1 7-72	††1 5-45	††1 6-87
Periavurrai ...	157	1 10½	Ceylon ...	1 10-72	1 7-96	1 8-59
Gudrale ...	152	1 9½	Java ...	1 2-50	1 0-74	1 3-30
(e) <i>Mundakayam</i> —			Sumatra.	Nil	1 4-33	1 5-72
Yendayar ...	69	1 5½	Nyassa-			
(f) <i>Nilgiris</i> —			land.	1 2-75	1 1-04	1 4-57
Prospect ...	127	1 11	Total	*1 8-63	†1 5-88	†1 7-57
Glendale ...	75	1 9½				
(g) <i>Nilgiri-Wynaad</i> —						
Rousden Mallai ...	90	1 6½				
New Hope ...	175	1 6				
(h) <i>South Travancore</i> —						
Braemore ...	47	1 6½				
Poonmudi ...	91	1 5½				
Hereford ...	68	1 5½				
(i) <i>Wynaad</i> —						
Elstone ...	40	1 6½				
Erramaculla ...	60	1 5				
Fringford ...	83	1 4½				

(b) SPECIAL COFFEE CABLE
LONDON, DECEMBER 23, 1925
'A' COFFEE
140s. PER CWT.
MARKET QUIET

aBased on 1,370 pkgs. ** Based on 3,416 pkgs. * Based on 72,058 pkgs.
b " " 168,131 " †† " " 171,547 " † " " 2,933,187 "
c " " 123,999 " ‡ " " 126,726 " ‡ " " 2,725,259 "

(c) *Précis of reports on London* Markets received on December 21 and covering the week ending Wednesday, December 2 :—*

(1) *Tea.*—At the commencement of the week under review South Indians showed a drop of about 1*d.*; but this set back only lasted until Monday, November 30, when prices recovered and a very keen demand set in. The North Indian crop to the end of October is stated to be 284½ million pounds as against 283 millions for the same period last season; so that the 21 million pounds by which the 1925 exceeded the 1924 crop at the end of August was reduced to 1½ million pounds during the ensuing two months.

(2) *Rubber.*—Since our last review the London stocks decreased by 705 tons and on December 2 stood at 3,799. The market was comparatively quiet and 'Standard' was bought at prices ranging from 4/4½*d.* to 4/6½*d.* per pound. An American is reported to have bought 360 tons at 2/6*d.* per pound f. o. b. Colombo; for delivery in equal monthly quantities of 10 tons during 1926, 1927 and 1928.

(3) *Coffee.*—East Africans monopolized the auctions, and some of the finer Kenyas obtained handsome prices though weakness was evident in the medium and inferior kinds. A few old lots of East Indians are reported to have been sold privately at satisfactory rates.

III. Weekly Rainfall Statement

From April 1, 1925, up to and including Saturday, December 19, 1925

Stations are arranged in order approximately south to north and those not in planting districts are shown in small capitals.

Stations	W.	P.	Total	Stations	W.	P.	Total
1. Kalthuritty.	Nil	91·38	91·38	19. Coonoor ...	0·49	70·02	70·51
2. *Tenmalai.	N.R.	N.R.	N.R.	20. Kotagiri ...	0·42	57·46	57·88
3. Mundakayam.	0·97	148·02	148·99	21. Ootacamund	0·07	48·74	48·81
4. *Peermade.	Nil	169·60	169·60	22. Yercaud ...	0·36	49·76	50·12
5. Twyford ...	N.R.	200·99	N.R.	23. Devala ...	N.R.	130·29	N.R.
6. V'periyar ...	N.R.	80·39	N.R.	24. Gudalur ...	Nil	73·35	73·35
7. Kalaar ...	0·99	209·33	210·32	25. CALICUT ...	Nil	134·37	134·37
8. Chittuvurrai	0·10	55·80	55·90	26. Kuttiyadi ...	Nil	178·34	178·34
9. BODI'KANUR	0·07	25·16	25·23	27. Vayittiri ...	N.R.	159·76	N.R.
10. COCHIN ...	0·12	109·06	109·18	28. Manantoddi.	Nil	110·85	110·85
11. *Mooply ...	Nil	113·15	113·15	29. Billigiris ...	0·12	64·09	64·21
12. MooplyValley	N.R.	124·11	N.R.	30. *Sidapur ...	Nil	N.R.	N.R.
13. Pachaimalai	N.R.	122·86	122·86	31. Pollibetta ...	N.R.	85·38	N.R.
14. Mudis ...	Nil	200·56	200·56	32. Somwarpett	Nil	84·21	84·21
15. POLLACHIE.	Nil	29·91	29·91	33. Ballupete ...	0·24	75·62	75·86
16. Manjeri ...	Nil	125·76	125·76	34. MANGALORE.	Nil	138·33	138·33
17. Nilambur ...	N.R.	101·11	N.R.	35. MADRAS ...	0·43	60·99	61·42
18. Naduvattam	Nil	83·11	83·11				

W = During the week.

P = Previously.

N.R. = No return.

* = U.P.A.S.I. Ex. Station.

Registered No. M. 610.

**U. P. A. S. I.
SPORTS CLUB**

Annual Meet. Ootacamund,

BEGINNING

:: Saturday 21st March, 1925. ::

**SUPPLEMENT TO
THE PLANTERS' CHRONICLE,
COIMBATORE,**

S. INDIA.

Vol XX. No. 11.

14th March 1925.

THE U. P. A. S. I. SPORTS CLUB.

In such a large area as Southern India, where the Planting Districts, are necessarily scattered to a very considerable extent, it is something of an achievement that such a body as a United Planters' Association should have come into being at all. It is a matter of admiration that planters of South India have shown such good sense and business ability concerning their industry. Similarly, in the realm of sport, the very real difficulties of time and distance, after holding sway for a generation, have been overcome to a very large extent by precisely that same energy and decisive determination which planters have shown in business. It is true that modern means of transport have helped not a little. In the old days men did wonderful journeys to attend a planters' meeting. On foot, by bullock carts, the estate hack and eventually by train, planters would cover many leagues but it must be remembered that districts were represented at these meetings by only one or two men. In the matter of sport, when the question arises of transporting teams of anything up to fifteen players, it is obviously another story and it is mainly the difficulty of getting so many men away at the same time which has led to the absence of any scheme of general inter-district competitions. From time to time districts have met each other at Cricket, Tennis, etc., and there are of course, still in existence, certain historic fixtures where two districts easily accessible to each other, do battle. It was not until quite recent years however that a combined planters' eleven, formed to play the Madras Cricket Club in December 1921, became the starting point for a Sports Club. Prior to this the General Committee, U. P. A. S. I. had considered the matter of Inter-District Sports and had come to the conclusion that tennis would be the only game which it would be possible to arrange owing to the difficulty of a large number of men moving from district to district. That was early in 1921 or late 1920. A tennis tournament was at once organised and was won by the High Range at Coimbatore in October 1921, the Nilgiris being runners up. In September 1922 advantage was taken of the cricket match versus Madras at Coimbatore to inaugurate the South Indian Planters' Cricket Club.

At the annual U. P. A. S. I. Meeting in 1923 it was decided to hold a sports week and concentrate on one place for a yearly meet. The accounts of the different branches were amalgamated and the Cricket Club and Tennis Tournament organisations were merged in the U. P. A. S. I. Sports Club. In February 1923 a tennis and golf meet was held at Ooty and was an unqualified success in spite of the short notice and the fact that the organisation was in its infancy. In 1924, this was developed into a properly organised concentration and this year the meet to which the following pages relate is again being held at Ootacamund. The energetic president of the Club Mr. N. C. Whitton has left no stone unturned and aided by a number of enthusiastic lieutenants, has prepared a programme of events which should satisfy the most fastidious of tastes. E. V.

U. P. A. S. I. SPORTS CLUB.

Planters' Week

AT

Ootacamund, 21st to 29th March 1925

P r o g r a m m e .

Saturday,	(a)	Ootacamund Gymkhana Club Annual Tennis Tournament opens	... 10-15 a. m.
21st March	(b)	Inter-District Golf (1st Day)	... 2-30 p. m.
	(c)	Rugby Football Trial Match, (Hobart Park) "The Rest" Vs. Wellington	... 5-15 p. m.
	(d)	Cinema Performance, Assembly Rooms	... 5 p. m.
	(e)	Afternoon Dance "Woodside" (Madras Police Band)	... 6 p. m.
Sunday,		Inter-District Golf (Last Day)	... 10-15 a. m.
22nd March		" " " (Final Match)	... 3 p. m.
Monday,	(a)	Inter-District Tennis (1st Day)	... 10-30 a. m.
23rd March	(b)	Ootacamund Gymkhana Club Annual Tennis Tournament (2nd Day)	... 11-30 a. m.
	(c)	The "Carver" Rugby Challenge Cup, (Hobart Park) The Ana- mallais vs. "The Rest"	... 5-15 p. m.
	(d)	Dance at "Woodside" (The Anamallai Planters Jazz Band)	... 9-30 p. m.
Tuesday,	(a)	Inter-District Tennis (Last Day)	... 10-15 a. m.
24th March	(b)	Ootacamund Gymkhana Club Annual Tennis Tournament (3rd Day)	... 10-15 a. m.
	(c)	Afternoon Concert and Dance at the Assembly Rooms (Madras Police Band)	... 5-30 p. m.

- (d) Mr. J. J. Murphy's Dance at
"Woodside" ... 9.30 p. m.
(Madras Police Band).

**Wednesday
25th March**

- (a) Ootacamund Gymkhana Club
Annual Tennis Tournament
(4th Day) .. 10-15 a. m.
(b) Police Sports (Hobart Park) ... 4 p. m.
(Madras Police Band).
(c) Cinema Performance Assembly
Rooms ... 5-30 p. m.
(d) Afternoon Dance at 'Woodside' ... 6 p. m.
(Anamallai Planters Jazz Band).

**Thursday,
26th March**

- (a) Ootacamund Gymkhana Club
Annual Tennis Tournament
(5th Day) ... 10-15 a. m.
(b) Grand Fancy Dress Ball, As-
sembly Rooms ... 9-30 p. m.
(Madras Police Band)

**Friday,
27th March**

- (a) Cricket Trial Match ... 11 a. m.
(Hobart Park.)
(b) Afternoon Dance "Woodside" ... 6 p. m.
(Madras Police Band.)

**Saturday
28th March**

- (a) General Meeting of U. P. A. S. I.
Sports Club, Masonic Hall ... 10-15 a. m.
(b) Cricket, The Panthers Vs. M.C.C.
(1st Day) ... 11-30 a. m.
(c) Cinema Performance Assembly
Rooms ... 5 p. m.
(d) Afternoon Dance "Woodside" ... 6 p. m.
(Madras Police Band)
(a) Amateur Theatricals by the
O. A. D. S. and W. A. D. S. ... 9-30 p. m.

**Sunday,
29th March**

- (a) Cricket, The Planters Vs. M.C.C.
(2nd day) ... 10-45 a. m.
(a) Dinner to M. C. C. Team at
Ootacamund Club ... 8-30 p. m.

CRICKET.

The Committee member for Cricket is

G. W. FULCHER Esq.,

WOODBRIAR ESTATE,

Davershola P. O., Nilgiris,

The following fixtures have been arranged.

1. Friday 27th March. Trial Match North v. South.

North will be distinguished from South by a line drawn from Calicut, through Coimbatore, Erode and thence South Indian Railway line. The West Coast District being South.

2. Saturday 28th March (1st day) at 11.30 a. m. Planters' v M. C. C.

Sunday 29th March (2nd day) at 10.45 a. m.

3. Monday 30th March at 11 a. m. Planters' versus Wellington Gymkhana. In the event of sufficient players being able to remain over it is probable a whole day fixture will be offered to the Indians of the Nilgiris on Tuesday 31st March.

TENNIS.

The Committee Member for Tennis is

STUART HAWKINS Esq.,

NETTIGUDI ESTATE,

Mattupatti, P. O.,

Via. Periakulam.

A trophy subscribed for by the original subscribers to the Tennis Tournament as constituted in 1921, is played for by District teams.

RULES.

1. The following shall be eligible to play :—

(a) European employees of Estates belonging to a District Association affiliated to the U. P. A. S. I. Both the Association and the players must be members of the U. P. A. S. I. Sports Club

(b) European employees of the U. P. A. S. I. being members of the U. P. A. S. I. Sports Club.

2. Each District and the U. P. A. S. I. may be represented by a team of not more than three players.

3. The tournament shall be a knock-out one and shall be held annually during Planters' Week under the auspices of the U.P.A.S.I Sports Club.

4. The matches shall consist of four singles (best of 3 setts) and one doubles (best of three setts). (In explanation of above Rule, four singles means that each of two players in a team shall play a singles against each of two players in the opposing team).

5. The matches shall be decided on points calculated as follows: For each singles the winner shall score one point for his side. For the doubles, the winners shall score 3 points for their side.

6. In all matches, two singles shall first be played, followed by the doubles, and then (if necessary) the other two singles.

7. In the event of any dispute arising, the matter shall be referred to the Upasi Sports Club Committee whose decision shall be final.

The following entries have been received:—

The Mysore District.

„ Anamallais	„
„ Coorg	„
„ Kanan Devans (High Range)	District.
„ Nilgiri-Wynad	„
„ Peermade	„
„ Wynad	„
„ U. P. A. S. I.	

PREVIOUS WINNERS.

1921	The Kanan Devans (High Range)
1922	„ „ „
1923	„ „ „
1924	„ „ „

GOLF.

The Committee Member for Golf is.

G. W. FULCHER, Esq.,

WOODBRIAR ESTATE.

Davershola, P. O.,

Nilgiris.

For this inter-district competition a trophy is annually presented by the Nilgiri Planters' Association.

1st day 21st March Qualifying rounds 2-30 p. m.

2nd „ 22nd „ Match play 10-15 a. m. & 3 p. m.

CONDITIONS :—

If 6 or more districts enter the best 4 will qualify.

5	...	...	...	3	...
4 or less	...	...	...	2	...

In the qualifying round district pairs will not be allowed to play round together. As far as possible entrants with even handicaps will be sent off together. Each player to keep the other's card.

Qualification will be on the combined cards of each district pair.

The Ootacamund Golf Club local rules will be found on the back of each card and should be read before play by those who have not played before on the Ooty links.

The draw for inter-district match play on the 2nd day will take place after the qualifying rounds on the evening of the 1st day in the Golf House.

The following entries have been received :—

- The Nilgiri District.
- „ Nilkiri Wynaad District.
- „ Coorg District.
- „ Kanan Devans (High Range).
- „ Mysore District

PREVIOUS WINNERS.

- 1923, at Ootacamund. High Range.
 - 1924, at Ootacamund. Nilgiri-Wynaad.
-

RUGGER.

This is the first year that Rugger has been played under the auspices of the Club. The Anamallai District has given an admirable lead to the other districts in promoting the playing of Rugger. The following matches have been arranged.

Saturday 21st March. "The Rest" Vs Wellington

Monday 23rd March. "The Anamallais Vs. "The Rest"

A trophy presented by Mr. G. A. Marsh is at stake on Monday 23rd March. "The Carver" challenge cup of the value of Rs. 500 will be competed for by the Anamallais and a team representing "The Rest" (should no other district enter.) The conditions under which the cup is to be annually competed for have been left to the Sports Club Committee but Mr. Marsh stipulates that the cup is solely for Planters' and no other teams.

All enquiries regarding Rugger, entries etc., should be addressed to

N. C. WHITTON ESQ.,
'Gretna',
Ootacamund.

OTHER EVENTS.

Attention is drawn to the programme for details of the dances, etc., arranged for the week. With regard to Theatricals the Wellington and Ootacamund Amateur Dramatic Societies are conjointly staging a Triple Bill on the evening of the 28th March. The plays to be shown are "That Brute Simmons", a one act Farce, "The Brass Door Knob", a one act Play, and "Fancy Free", a one act Comedy. The first and third will be produced by the Wellington Amateur Dramatic Society while the second will be produced on behalf of the Ootacamund Amateur Dramatic Society by Mr. H. Kirkpatrick. Seats can be booked any day during the Week on calling at the Assembly Rooms where the performance will be given.

U. P. A. S. I. SPORTS CLUB.

OFFICE BEARERS.

The first President and Committee elected at Bangalore in 1923 were:—

President:—Sir Fairless Barber.

Committee:—G. W. Fulcher.

" B. M. Behr.

" J. Stuart Hawkins.

" J. Hatton Robinson.

The Club owes much to these original members. On Sir Fairless Barber going home, Mr. N. C. Whitton, representing him, did Yeoman service in connection with the 1924 meet. At Bangalore last year, Mr. Whitton was elected President and still holds that office. The

Committee Members are:—

H. H. English.

J. Stuart Hawkins,

H. H. Stuart and

G. W. Fulcher (Hon. Secretary).

U. P. A. S. I. SPORTS CLUB.

The following is the Membership List as at 12th March 1925.

ANAMALLAIS.

Life Members, 1923—24.

C. R. T. Congreve.
D. Cooper,
E. Hardy,
E. N. House,
J. A. R. Lloyd,
J. Hatton Robinson.
E. W. Simcock.

E. V. Hammond,
H. H. Stuart,
T. Davenport,
C. R. T. Congreve,
A. C. Cotton,
P. E. Achard,
C. L. Napier,
F. Simmons,
J. E. Sampson.

CENTRAL TRAVANCORE.

Life Member, 1923—24.

J. S. Wilkie.

W. F. Inman,
R. McMullin,
E. C. Sylvester,
G. P. Farley,
A. R. St. George,
W. A. J. Milner,
J. M. Wilkie,
The Association.

COORG.

The Association.

J. V. Shank,
H. W. Bell,
L. Newcome,
A. F. Magniac,
J. S. H. Morgan,
E. M. Gray.

KANAN DEVANS.

Life Members.

W. A. Lee,
W. J. Dixon,
H. L. Pinches.

The Association

J. C. Swayne,
A. G. Macgregor,
A. Yates,
E. M. Pinks.
J. Aitken,
J. M. Bridgman,
R. Brown,
P. G. Campbell,
G. W. Cole,
J. C. B. Craske,
R. B. Cullen,
A. H. Dixon,
E. H. Francis,
A. Frayer,
C. P. Gouldsbury,
E. E. Grandage,
C. A. V. Grant,
J. Gray,
J. S. Hawkins,
G. A. Holden,
G. L. Jack.
A. W. John,
R. S. Keir,
H. Kirby,
M. J. Koechlin,
W. P. Laird,
A. W. Leslie,
H. S. Mackay,
Wm. Mackenzie,
E. C. Mc Cankie,
D. M. Mac Intyre,
G. D. Marr,
A. Ff. Martin.
B. H. Mathews,
W. O. Milne,
H. E. W. Newman,
J. A. Nicolson.

KANAN DEVANS—(contd).

J. Olney,
F. Patterson,
E. E. Ranicar,
R. St. C. Shields,
J. Stanton,
G. R. Strachan,
H. Swayne,
F. V. Stuart.
J. S. B. Wallace,
A. J. Wright.
H. G. Marshall,
A. Steven,
J. W. Tolson,

NILGIRIS.

Life Member,—1923-24,

Sir Fairless Barber.

The Association,

B. A. Marden,
L. F. Lake,
A. S. Dandison,
R. L. Stuart,
R. F. Bryant,
(for next year)
E. G. Windle.
S. C. Reilly.
C. R. C. Daubeney.

MUNDAKAYAM.

Life Member 1923-24:—

J. J. Murphy,
J. R. Vincent,
A. D. Vincent,
G. Macpherson,
G. A. Rutherford,
E. S. Conner,
W. Gillespie,
R. N. W. Jodrell,
C. O. Smith,
J. S. A. Symons.

NILGIRI WYNAAD.

Life Members:—1929-24.

J. B. Adkins,
G. W. Fulcher,
J. S. Nicolls,
H. L. Cuthell,

G. W. Fulcher,
L. W. Bellers,
R. Bently,
W. Seton Scott,
P. W. Davies,
R. M. Nicolls,
P. A. Naylor,
W. K. Baillie,
D. Mackintosh,
R. Fowke.

MYSORE.

Life Members:—

C. H. Godfrey—1923-24.
E. L. Poyser—1924—25.

SOUTH TRAVANCORE.

Life Members:—Nil.

C. Lake,
J. Lee Stuart
H. H. English,
E. M. Nixon,
A. H. Courpalay,
W. H. F. Lincoln.

E. T. C. Farr,
John B. Cook,
F. H. Powell,
L. J. Jackson.

I. A. R. I. 75.

INDIAN AGRICULTURAL RESEARCH
INSTITUTE LIBRARY,
NEW DELHI.

**This publication is to be returned within 15 days
from the date of issue.**

[illegible]

MGIPC-S3-90 AR/57-20-2-58-4,000.